MANUAL OF THE ADMINISTRATION

OF THE

MADRAS PRESIDENCY,

IN ILLUSTRATION OF THE

RECORDS OF GOVERNMENT & THE YEARLY ADMINISTRATION REPORTS.

IN THREE VOLUMES.

VOL. I.—CHAPTERS I—9,

Containing the principal articles of the Manual arranged so as to conform to the order of subjects in the Yearly Presidency Administration Report.

MADRAS:
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PREFACE.

The chief object of the following pages has been to explain for the general reader [illegible] [illegible] subjects, the machinery and to some [illegible] general principles of the administration employed in the Presidency, so as to form [illegible] volume to the Government records and the yearly Presidency Administration Report. [illegible] a large amount of information also a number of statistics, comparative and for a series of years, which are not to be found in the current pages of the Administration Reports. Thirdly, as the work is [illegible] [illegible] for the Presidency, and as it would appear necessary for a proper understanding of the administration that something should be known of the country, a certain amount of [illegible] information has been given on such subjects as geography, ethnology, history, relations with other provinces, &c. The procedure adopted in the preparation of the departmental part of these volumes has been to collect, from heads of official departments and other sources the names of books, reports, &c., to draft articles from that material, and to send the drafts for final correction to the heads of departments or to selected officers. [illegible] [illegible] departmental portion of the book have [illegible] [illegible] [illegible] the latter process. In one or two cases officers have been asked to furnish contributions, and the necessities of space and uniformity have prevented much use being made of that method. The statistics end with those of the 188[illegible] Government Administration Report. The [illegible] has been brought down to the end of the calendar year 188[illegible]. As for the component parts of the volumes, it has been considered quite unnecessary to show where original work begins and where it ends, or to indicate the numerous sources from which compilation has been made. Compilation has seldom taken place without extensive modification of that which has been compiled, so as to bring the matter up to date and to present it in the most compressed form. Material before contributed to Imperial volumes has been reproduced for these volumes. But in such matters it probably only concerns the reader to know that an endeavour has been made to present a variety of information which must be searched for elsewhere under many heads, and that there is given in these pages the best information available at the present moment of [illegible]. The orthographic method of the work follows that [illegible] in [illegible] [illegible] of the previous volumes. The Editor has adopted the only method with which he is acquainted for giving definition to the [illegible] and difficult [illegible]. The obligations of the Editor are due to the Government Press for the careful performance of the [illegible] in connection with the preparation of this work. The maps have been prepared at the Madras Survey Office.

PREFACE.

The initial object of the following pages has been to explain for the official reader or the reader interested in official subjects the machinery and in some part the general principles of the administration employed in the Presidency, so as to form companion volumes to the Government records and the yearly Presidency Administration Reports. As a pendant to the above the volumes contain also a number of statistics, comparative and for a series of years, which are not to be found in the current pages of the Administration Reports. Thirdly, as there is at present no gazetteer for the Presidency, and as it would appear necessary for a proper understanding of the administration that something should be known of the country, a certain amount of gazetteer information has been given on such subjects as geography, ethnology, history, relations with other provinces, &c. The procedure adopted in the preparation of the departmental part of these volumes has been to collect from heads of official departments and other sources the names of books, papers, &c., to draft articles from that material, and to send the drafts for final correction to the heads of departments or to selected officers. Whatever accuracy the departmental portion of the volumes may possess is due to this latter process. In one or two cases officers have been asked to initiate contributions, but the necessities of space and uniformity have prevented much use being made of that method. The statistics end with those of the 1883-84 Government Administration Report. The law has been brought down to the end of the calendar year 1884. As to the component parts of the volumes, it has been considered quite unnecessary to show where original work begins and where it ends; or to indicate the numerous sources from which compilation has been made. Compilation has seldom taken place without extensive modification of that which has been compiled, suited to bring the matter up to date or to present it in the most compressed form. Material before contributed to Imperial volumes has been reproduced for these volumes. But in these matters it probably only concerns the reader to know that in one cover is here presented a variety of information which must be searched for elsewhere under many covers, and that there is given in these pages the best information which is at the present moment available. The orthographic method of the work will be found described in paragraph 738 of the present volume. The Editor has adopted the only method with which he is acquainted for giving definition to this transitional and difficult subject. The obligations of the Editor are due to the Government Press for the careful performance of the labour involved in the preparation of this work. The maps have been executed at the Madras Survey Office.

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CHAPTERS I–IX.

CHAPTER I.

GENERAL AND POLITICAL.

GEOGRAPHY.

1. Situation and Boundaries of the Presidency.—The present Madras Presidency, [1 to 6] or the Presidency of Fort St. George, occupies the southern portion of the peninsula from latitude 20° 18′ on the eastern coast and latitude 14° on the western coast to Cape Comorin in latitude 8° 4′; the longitude ranges from

[1] Sketch Account of the Ancient Geography of Southern India according to the Sanscrit Authors.—*Introduction.*—The Hindoo ancient geography, though powerful and accurate in its broad conceptions of the country as far as they have been handed down to us, gives these only in the way of suggestion and in connection with theological and other disquisitions. Some information however can be obtained of the division of the country into different kingdoms from scattered remarks in writings ranging from the Vedic or earliest period onwards; and by the time of the Pooranas the Hindoo writers had apparently realized if they did not record a more or less definite system of topography. The various authorities are as follows; the Vedas (date unknown), the Mahabharat (before 1500 B.C.), the Ramayana (before 1000 B.C.), Menoo (before 900 B.C.), the Mahavanso (with chronicles from 543 B.C.), Varauha Mihira (about 400 A.D.), the Pooranas (seventh to tenth centuries A.D.), and Bhascaracharya (eleventh century A.D.). (2) *The Vedas.*—The Vedas mention the Aryans as living in the 'Sapta Sindhava,' or 'the country of the seven rivers,' the modern Punjaub. These seven rivers are the Indus, Vitastah (Jhelum), Asiknee (Chenaub), Irauvatee (Rauvy), Vipaushah (Beas), Shatadroo (Sutlej), and Saraswatee (Sarsooty). The Yamoonah (Jumna) and Ganges are merely named, while the Vindhya mountains and the Nerbudda are as yet not mentioned at all. The Aryans were then divided into ten tribes, among whom may be specially mentioned the Bharatas, Matsyas, Anoos, and Droohyavah. These particulars are negative as far as relates to Southern India. It shows that the peninsular shape of the country was not known to the Aryans of the Vedic period. (3) *The Mahabharat.*—This epic of a date of about two thousand years B.C. agrees with later writings in giving a Navakhanda or nine-fold division of India. Thus; Indra (east), Casheroomat (north), Tamraparna, Gabhastimat, Coomauricah (centre), Naga, Sowmya, Vauroona (west), Gandharva. This is the lotus with eight leaves; a fair conception. It does not however describe these divisions in detail, or specify where they were; the directions even being only obtained by inference. The historical difficulties connected with the identification of names are much increased by the fact that though the general date of a poem or work may be ascertainable, it is impossible to fix the dates of individual shlocas; interpolation being the rule rather than the exception. In the Bheeshmaparva of the Mahabharat the shape of India is described as an equilateral triangle, the Himalayas being the base with the apex to the south; this triangle was further divided into four smaller triangles fitting in with one another. By this time the Aryans had advanced along the Yamoonah and Ganges: the tribe called Bharatas having moved from the west of the Vipaushah to the upper Ganges; the Matsyas and Yadavas to the Yamoonah; the Paunchaulas (or the five tribes) to between the Ganges and the Yamoonah; the Cosalas to the banks of the Sarayoo (Gogra); while still further to the east and north of the Ganges were the Videhas, the Caushayas and the Angas. To the south of the Ganges were the Maugadhas. The capital of the Bharatas and Paunchaulas was at first Hastinapoora (not far from Delhi), and afterwards Kowshaumbee on the Yamoonah. The capital of the Cosalas was Ayodhyah (Oudh); of the Videhas, Mitilah in Tirhoot; of the Caushayas, Vauraunasee or Benares (still called Caushy by the natives). The Angas had their capital at Champah on the Ganges, and the Maugadhas at Girivraja or Rajagriha (Raujgeer), afterwards famous as a centre of Booddhism. The Mahabharat gives the following list of out-caste or non-Aryan tribes:—Shaucas, Yavanas, Cambojas, Dravidas, Calindas, Poolindas, Oosheenaras, Colisarpas, Mecalas, Lautas, Convashiras, Showndeecas, Darvas, Chodas, Shavaras, Barbaras, and Kirautas. By the Dravidas is probably meant the whole of Southern India. In the Harivamsha, the last portion of the Mahabharat, two other nations of Southern India are mentioned, viz., the Cholas and Keralas, but this portion of the poem is not so ancient as the remainder. There is evidently no connection, other than the similarity between a Sanscrit and a Dravidian word, between the king Pandoo or the Pandavas of the Mahabharat and the Pandyan kingdom of Tinnevelly and Madura. As Chola, Chera, and Kerala are all pure Dravidian words, it is not probable that Pandya alone would be a Sanscrit word. A conjecture may be hazarded that Pandya means the toddy-country; from the Tamul பாணி, toddy. The Tamraparna division of the Navakhanda and the ταπροβάνη of the Greeks are one and the same, indicating Ceylon. The name (meaning in the Sanscrit 'copper leaved') is again in all probability a corruption by Sanscrit travellers of பொருணி which also means toddy. The river in Tinnevelly called by the Sanscrit authors Tambrapurny, like the Ceylon island, is called to this day by the Tamuls பொருணி or the toddy river; which appears decisive of the point. The word Tambrapurny is not known to the real Tamuls of Tinnevelly. The Greeks called this river the σωλὴν or chunk-river, but not ταπροβάνη. Later Sanscrit authors have erroneously derived the division of the Navakhanda from this small river, instead of from the island. The latter was its true derivation. (4) *The Ramayana.*—The early scenes of Valmeeky's Ramayana, the action of which is later than the Mahabharat, are laid in Ayodhyah (Oudh) on the river Sarayoo (Gogra), in the kingdom of Cosala. The second section describes Rama's residence in the forests of Central India. The third section describes his assumed conquest of Ceylon. The King of Cosala is represented as being the ruler of a number of other kings, including those of Anga, Mitilah (Tirhoot), Caushy (Benares), Magadhah (Behar), Sindhoo, Sowrashtra (the Mahratta country), and others grouped under the general appellation of kings of the Deccan. From the south of the Jumna to the Godavery the whole country is represented as a wilderness. Towns mentioned are Shringavaira on the Ganges, the frontier town between Cosala and the kingdom of the Nishaudas or Bheels; Prayauga (Allahabad); Panchavatee on the Godavery; Kishkindhyah in Mysore; and Vishaulah. The rivers Ganges, Jumna, Tamasah, Gomatee (Goomty), Mandaukinee and Godavery are mentioned; and mountains Chitracoota in Bundelcund and Rishyamooca and Maulyavauna in Mysore. Of these places, Rishyamooca the residence of Soogreeva the monkey chief who had been dethroned and with whom Rama allied himself, Kishkindhyah the monkey city of Bauly the elder brother and enemy of Soogreeva, and the Maulyavauna mountain the residence of Rama and Lakshmana in the rainy season; are the most

74° 9′ to 85° 15′. The extreme linear length of the Presidency, from north-east to south-west, is about 950 miles; its extreme linear breadth is about 450 miles. The coast-line on the east commences north at the confines of the large salt lagoon

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prominent in the narrative itself. They may each be placed in Mysore or the Carnatic. Lunka (Ceylon) and Rameshwara naturally form principal features of the conclusion. The nations of the Deccan are enumerated as follows:—the Mecalas, Ootcalas (Orissa), Darshaurnas, Vidartas, Rishicas, Mauhishacas, Matsyas, Calingas, Caushicas, Andhras (between the Godavery and the Kistna), Poondras, Cholas, Pandyas, and Keralas. The historical bearings of the Ramayana will be considered hereafter, but it is evident that it marks a largely increased knowledge by the Aryans of peninsular India. The two names of Ramnaud and Rameshwara still commemorate the event of the expedition or the legend; and the incident of the bridge made by the monkeys can only have been derived from natural observation of the causeway existing between India and Ceylon, now for the most part submerged. (5) *Menoo.*—At the time of Menoo, somewhat later than the Ramayana, the principal seat of the Aryans was in the tract of country situated between the rivers Saraswatee (Sarsooty) and Drishadwatee (Caggar). This region was called by them Brahmahvarta, and was held in especial sanctity. It embraced the modern districts of Umballa, Shahabad, Puttiaula, and part of the Terai. The capital was Staneswara on the Saraswatee; other important cities being Indraprasta (Delhi), Sauketa or Ayodhyah (Oudh), and Hastinapoora. The country of Cooroocshetra (stretching from the Saraswatee on the north towards Vrindauvana and Maturah), and of the Matsyas, Paunchaulas (occupying the country near Canyahcoobja or Canouj), and Shoorasenas (in the neighbourhood of Maturah) was called 'Brahmarshidesha,' or 'the land of divine sages.' This tract probably included the country lying between Ajmeer and the Punjaub, together with the provinces of Delhi and Agra. The province of Matsya corresponds to a portion of Rajpootana. Its capital was Virauta (Beirat). Maturah was on the banks of the Jumna. Paunchaula extended from the Himalayas to the Jumna. It was divided into several smaller states, among which were Srooghna, Mandalapoora, Brahmapoora (the modern Garhwaul), Maudipoora, Govishauna, Ahichatrah, Piloshana or Veerausana (containing the towns of Oocalacshetra, Sahawar-karsana and Piloshana), Canyahcoobja (Canouj), so called from the legend that a hundred hunchbacked princesses were here cured by a sage, Sancausya, Cacoopoora (Cawnpore), Hayamookha, and Vatsa, containing the cities of Prayauga (Allahabad) and Cowshaumbee. The tract of country situated between the Himavat (Himalaya) and the Vindhya ranges, to the east of Vinashana (where the Saraswatee disappears in the desert), and to the west of Prayauga, was known as the Madhyadesha or central region. Its principal divisions and towns were Cosala, the country watered by the Sarayoo (Gogra), Ayodhyah (Oudh), also called Sauketa and Visauca, one of the most powerful cities of ancient India, Iraswatee, Cooshapoora (Sultanpore) on the Gomatee (Goomty), Ganda, Capilavast or Capilanagara to the east of Ayodhyah, on one of the tributaries of the Rapty, Ramagrauma, Pippalavana, Caushy or Vauraunasee (Benares), Mitilah (the modern Tirhoot), of which the principal sub-divisions were Garjapatipoora (Ghazeepore), Sarana (Saurun), Veishaulee (Besarh), Teerabhoocty (Tirhoot), Janacapoora, Kesarya, and Nepaula (Nepaul). On the right bank of the Ganges and at the extreme east of the Madhyadesha were the states of Kanjkol (near Rajmahaul), Champah (Bhaugalpore), and Hiranyaparvata or Modahgiry (Mongheer), Magadhah (Behar), of which the chief towns were Coosoomapoora, afterwards Pautalipootra or Palibothra (Patna), and Cooshanagarapoora or Girivraja; Kiranasoovarna, and Odra or Ootcala (Orissa), the ancient capital of which was Cuttack, and afterwards Jajatipoora (Jajipoor). The general term Aryavarta included the whole country lying between the Himavat and Vindhya ranges 'from the eastern to the western ocean,' i.e., from the mouth of the Indus to the Bay of Bengal. Besides the three above-mentioned divisions of Brahmahvarta, Brahmarshidesha and Madhyadesha, the remaining portions of Aryavarta were divided into Praugdesha (the eastern country), Oodagdesha (the northern country), and Pratyagdesha (the western country), also called the country of the Mlechas or barbarians. The north-eastern portion was styled Aparaujita, or the unconquered country. The rising ground of the Vindhya mountains was called the Pariyautrah, or limits of travelling, as the Aryans were enjoined not to travel beyond this. Menoo names the following outcaste tribes:—Powndracas, Odras, Dravidas, Cambojas, Yavanas, Shaucas, Pauradas, Pahlavas, Cheenas, Kirautas, Daradas, and Khashas, which list includes the tribes of Southern India and the foreign nations beyond the limits of India, such as the Greeks, Persians, and Chinese. The Brahmin compilation which goes under the name of the sage Menoo contains less reference to Southern India than does the Cshatriya epic of the Ramayana; though the former was probably the later in date. The Cshatriya caste were more travelled than the Brahmin caste. (6) *The Mahavanso.*—It is usual to say that there are only some three or four centuries between the date of the institutes of Menoo and 543 B.C., the date of the earliest actual historical notice in the local Sanscrit compilation written in Ceylon called the Mahavanso. This fact may be doubted, but the matter will be discussed in another place. It is sufficient to mention here that Vijaya or Wijayo an Aryan prince is supposed to have come from no further north than the Teloogoo country in 543 B.C. to establish a rule in Ceylon, that he proceeded to take a wife from the Tamul country opposite, and that the early chronicles of this history contain frequent references to localities of Southern India. It is by some supposed that Bundermalanka (the port of the great Lunka) in the Godavery district was the point on the coast whence Vijaya sailed to Ceylon, and thence derived its name. Vijaya's wife was daughter of the king of Pandya, probably with capital at Korkay on the Tinnevelly coast. Chola and Chera are also mentioned in the chronicles. Tambapunny (the copper-leaved tree), on the west coast of Ceylon, opposite to the river in Tinnevelly above mentioned was the name given to Vijaya's first settlement; for which see the remarks noted above. The whole of Ceylon was afterwards called Tambrapurny, and hence the ταπροβάνη of the Greeks. (7) *Varauha Mihira.*—Varauha Mihira a Sanscrit astronomer, quoting in great part from a previous Sanscrit astronomer Paraushara, gives a 'Nava-khanda,' but with quite different names from those of the Mahabharat. In his arrangement, Paunchaula is the central division, Magadhah the east, Calinga the south-east, Avanty the south, Anarta the south-west, Sindhoosowveera the west, Harahara the north-west, Madra the north, Cowninda the north-west. In another place Varauha Mihira enumerates the kingdoms of the south thus; Pandya, Chola, Kerala, Carnautaca, Calinga and Andhra. He also mentions the towns of Canjy (Conjeeyeram) and Collagherry (Quilon); also Lunka (Ceylon), and the rivers Cauvery and Tambrapurny. The names of his two works are the Vrihatsamhitah and Vrihajjautaca. (8) *The Pooranas.*—The Pooranas (literally 'old' or 'sacred') are poetical treatises treating of five subjects:—(*a*) The creation of the universe; (*b*) its destruction and renovation; (*c*) the genealogy of gods and patriarchs; (*d*) the reigns of the Menoos, forming the periods called Manwantaras; and (*e*) the history of the solar and lunar races of kings. These are the five distinguishing marks, but no one of the Pooranas answers exactly to this description. The Pooranas have a regular system of cosmogony as follows. The universe is made up of a vast number of so-called mundane-eggs, each enclosing a separate world within its shell. The world in which we live is described as follows. The space directly contiguous to the shell of the mundane-egg is a region of darkness. Beyond this space is the Localoca mountain, 10,000 yojanas (a yojana being nine miles) in breadth and height, within which again is an uninhabited golden land. The inhabited portion of the globe is divided into seven 'dweepas' or continents, called Jamboo, Placsha, Shaulmaly, Coosha, Crowncha, Shauca, and Pooshcara. These dweepas are surrounded by seven great seas consisting of salt-water, sugar-cane juice, wine, clarified butter, curds, milk, and fresh-water. These oceans were formed by the wheels of a fiery chariot driven seven times round the earth by Priyavrata, son of the first progenitor of mankind, who thus endeavoured to turn night into day. According to this scheme, the several continents and seas form concentric circles, Jamboo Dweepa (Asia) being a circular island occupying the centre of the system. In the centre of Jamboo Dweepa again is the golden mountain Meroo, 84,000 yojanas high, which is crowned by the great city of Brahma. Besides Meroo there are two other mountains, Coomooda to the north and west, and Mandara to the south of the city of Brahma. There are also in this dweepa six ranges of boundary mountains, Himavat (Himalaya), Hemacoota, and Nishadha, south of Meroo, and Neela, Shweta, and Shringin to the north. The following rivers have their source in these mountains:—Jamboonadee, Aroonoda, Seetah, Chakshoo, Bhadrah, and Alacanandah. Jamboo Dweepa consists of nine 'varshas,' or divisions, named Bharata (India) south of the Himavat range, Kimpooroosha, Harivarsha, Ilauvrita, Ramyaca, Hiranmaya, and Oottara

called the Chilka Lake in the Bengal district of Cuttack, and gives a boundary successively to the Ganjam, Vizagapatam, Godavery, Kistna, Nellore, Madras, Chingleput, South Arcot, Tanjore, Madura, and Tinnevelly districts, and a small

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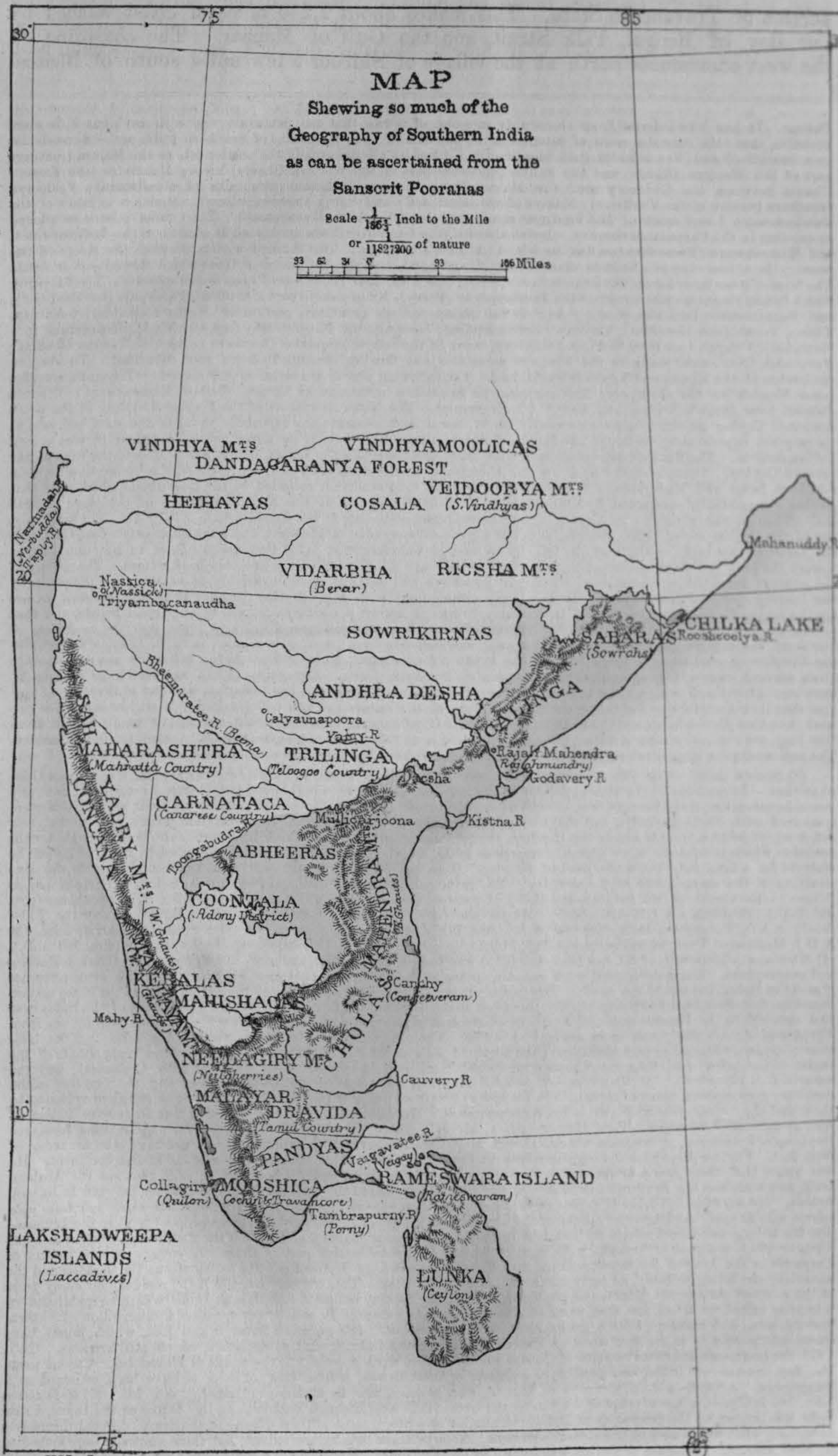
Cooroo to the north; while Bhadraushwa and Ketoomaulah lie respectively to the east and west of Ilauvrita, the central region. Bhauratavarsha (India) is divided into nine parts as in the Mahabharat. Its capital is Badaricaushrama. The nations inhabiting these nine regions are, on the east of Bhauratavarsha, the Kirautas, on the west the Yavanas (Greeks), and in the centre Brahmanas, Cshatriyas, Veisyas, and Shoodras. (9) *Particulars from the Vishnoo Poorana.*—The Vishnoo Poorana, which is the typical Poorana in point of contents, divides India proper into five regions, consisting of the centre, and the four chief points of the compass. According to this Poorana, the principal tribes inhabiting Bhauratavarsha (India) are the Cooroos and Paunchaulas in the centre; the people of Caumaroopa (Assam), in the east; the Poondras, Calingas (Coromandel Coast), and Maugadhas (South Behar) in the south; the Sowrashtras (people of Surat or Mahrattas), Shooras, Bheeras (near Mount Aboo), Arboodas, Caurooshas (near the Vindhyas), Maulavas (Malwah), Sowveeras, and Seindhavas (Scinde), in the west; and the Hoonas (Huns or Indo-Scythians), Shaulwas (Rajpootana), Saucalas (Punjaub), Madras, Ramas, Ambashthas, and Pauraseecas (Persians) in the north. (10) *Particulars from the Markandeya Poorana, Provinces.*—The following description of India proper is given in the Markandeya Poorana, which is the most secular of the Pooranas, abounding in legendary information. In the centre are Matsya (on the Jumna), Coormacata, Coolya, Caushy (Benares), Ayodhyah (Oudh), Atarva, Calinga (on the Godavery), Mashaca, Vrica, Medamatra, Maundavya, Shalla, Pashaca, Oojjihauna (Oojjein), Vatsa, Camya, Khata, Yamoonah, Madhyasarayoota, Shoorasena, Matoorah (Muttra), Dharmaranya, Jotishica, Showragreeva, Gooha, Shauca, Videha (in Tirhoot), Paunchaula (near the Chambal), Sankita, Cancamaroota, Calacoota, Pashanda, Caupistala, Cooroo (near Delhi), Vahya, Oodooswara, Jana and Hastina (near Delhi). In the east are Chandrapoora, Khasha, Magadhah (Behar), Shivy, Mitilah (Tirhoot), Vadanadantoora, Praugjyotisha (Assam), Poorooshaudaca, Poornotcata, Bhadragowra, Oodaya, Caushaya, Menaca, Ambashtha (Lahore), Taumalipta, Ecpaudooca, and Vardhamauna. In the south-east are Banga (Bengal), Jatara, Moolaca, Chaidy, Oorwacanta, Andhra (Telingana), Vindhya, Vidarbha (between the Kistna and Nerbudda), Naurikela, Dharmadweepa, Ilica, Vyagragreeva, Tripoora (Tipperah), Nishadha (the Bheel country), Catacastoona, Dashaurna, Harica, Nanda, Cacola, Alacah, and Varnashavara. In the south are Lunka (Ceylon), Carajina, Kelica, Nicata, Malaya (Malabar), Dardoora, Carcotaca, Bhrigoocatcha, Congaga (Concana), Shavard, Venna, Avantee (Oojjein), Dashapoora, Maheecata, Carnauta (Carnata), Gonanda, Chitracoota (Banda), Chola, Collagherry, Crowncha, Jataudhara, Nassica, Yojana, Veidoorya, Kole (the Kole country), Charmapatta, Ganarajjya, Krishna, Gowda, Rishabha, Singhala, Canjy (Conjeeveram), Trilinga (Telingana), Coonjara, and Coocshy. In the south-west are Camboja, Panhava, Varawamookha, Scindhoo (Scinde), Sowveera (between the Indus and Jhelum), Anarta (Cattywar), Vanitamookha, Yavana, Saugara, Shoodra, Carnaprodhaya, Barbara, Kirauta, Paurada, Shanda, Parsheshwara, Caula, Choochooca, Hemagirica, Sindhookhela, Reivata, Sowrashtra (Surat), Darada (near Cashmeer), and Mahaurnava. In the west are Manimegha, Cshooradree, Canjauna, Aparaunta, Heihaya (the valley of the Upper Nerbudda), Shantica, Ahiprasta, Concala, Panchanada (Punjaub), Varana, Paurada, Taracshoo, Vahyangata, Sarwara, Sashmaveshtaca, Yekecshana, Shasha-rooha, Deerghagreeva, and Choolica. In the north-east are Maundavya, Tootara, Ashmacalanala, Hala, Charmabanga, Oolooca, Mooroocoorma, Phalgoona, Mora, Gooracalica, Deergharoma, Vaya, and Ratajana. In the north are Himavana (Himalayas), Keilausa (Himalayas), Dhanooshmat, Vasoomat, Crowncha (Himalayas), Coorava, Cshoodraveena, Vasataya, Keikeya, Bhogaprasta, Yamoonah, Antardweepa, Trigarta (Loodiana and Puttiaula), Agnijya, Sarjana, Ashwamookha, Dosevaca, Vautadhauna, Sharadhauna, Pooshcala, Vanakeiranta, Anooloma, Tacshashila (Taxila), Madra, Venoocashara, Dandaca, Pingala, Calaha, Bhootipoolaca, Colahaca, Shatala, Hematalaca, Yashomatee, Gandhaura (Candahar), Carasa, Garada, Yowdheya, Shamaca. In the north-west are Kinnara, Pashoopaula, Keechaca, Darada, Shavala, Coolata, Vanaurashtra, Brahmapoora, Vanavadya, Visha, Cowlinda, Pragyabala, Darwa, Annajeevaca, Yecapada, Khasha, Soovarnabhooma, Yavana (Bactria or Greece), Hinga, Cheerapravarna, Trinetra, Powrava and Gandharva. (11) *The same, mountains.*—Colauhala, Veibhrauja, Mandara, Dardoora, Vatacrama, Vidyoota, Meinauca, Soorama, Tancaprasta, Neega, Godhana, Pooshpa, Doorjayanta, Reivata, Arbooda, Rishyamooca (in the Mahratta country), Gomanta, Cootasheila, Kritasmara, Shreesheila, Kola, Mahendra (the Eastern Ghauts), Malaya (Western Ghauts), Sahya (Western Ghauts), Gandhamandana (north of the Himalayas), Ricsha, Vindhya (Vindhyas), Shooctimat and Pauripautra. (12) *The same, rivers.*—From Himalaya descend the following rivers:—Gangah (Ganges), Saraswatee (Sarsooty), Sindhoo, (Indus), Chandrabhaugah (Chenaub), Yamoonah (Jumna), Vipaushah (Beas), Vitastah (Jhelum), Irauvatee (Rauvy), Gomatee (Goomty), Dhootapaupa, Bahoodah, Drishadwatee (Caggar), Vipaca, Sebita, Nicheera, Gandakee (Gandak), Cowshikee, Vedavatee, Mitragnee, Venah, Nandinee, Sandauneera, Mahee, Parah, Charmanvatee, Koopee, Vidishah, Vetravatee, Shiprah, Avantee, Patrashraya, Shona (Sone), Narmadah (Nerbudda), Swavasha, Kripah, Mandaukinee, and Dashaurnah. From mount Ricsha descend Chitropalah, Tamasah, Caramoda, Shareeraja, Shooctimatee, Cooshalee, Tridivah, and Croomoo; from mount Vindhya descend Stripra, Payoshnee, Nirvindhyah, Taupee (Tapty), Saliladhavatee, Venah, Veitaranee, Sinivaulee, Coomoodvatee, Mahagowree, and Antahshilah; from mount Malaya descend the Godavaree (Godavery), Bheemaratee, Krishnavenah (Kistna), Toongabhadrah (Toongabudra), Sooprayogah, Vajhacara, Kritamaulah, Tamrapurnee, Pooshpajauty, and Ootpalavatee; from mount Mahendra descend Pitrisoma, Rishicoolyah, Ikshoona, Laungoolinee, and Bangshacara; from mount Shooctimat flow Coomauree, Nandaga, Mandavauhinee, Kripah, and Palaushinee. All these rivers flow into the sea, some of them, however, after junction with others. (13) *Particulars from the Pooranas generally.*—The information is presented above in the way in which it is usual among Hindoos; and the Vishnoo and Markandeya are the two most esteemed of the Pooranas, for religious and secular purposes respectively. It will be seen however that the identifications to be obtained from the lists are scanty. Taking the whole of the Pooranas together the following facts may be extracted; but it must be admitted that the chronology involved is highly uncertain. Some facts may relate to one period, and some to another. Aboriginal races mentioned are the Sabaras (Sowrahs), the Andhras (north of the Kistna), the Dravidas (Tamulians), the Malayar (inhabiting the Southern Ghauts), the Abheeras (south of the Vindhyas), the Keralas (inhabiting Malabar proper), the Mauhishacas (Mysoreans), the Cholas (inhabiting the southern portion of the Coromandel coast), the Concanas (people of the Concan), and the Vindhyamoolicas (at the foot of the Vindhyas). The occupants of India generally are divided into Gowdas to the north and Dravidas to the south. The boundary line between these is formed by the Vindhya mountains and the Nerbudda river. The region inhabited by the Dravidas is subdivided into Maharashtra (Mahratta country), Trilinga (Teloogoo country), Dravida proper (Tamul country and the Southern Malabar coast), Carnautaca (Canarese country), Goorjara (Goozerat). Besides this geographical classification, the people are also divided according to their religion. A third division is made by the philosophical schools, the population being here classified into fifteen sections. Foreign bordering nations specially mentioned in the Pooranas as invading India and forming settlements are the Chinese, Tartars, Turcomans, Persians, Scythians, Huns, and Yavanas (a western nation or nations). An empire, extending over India, called Bharatakhanda is even mentioned. The capital of this empire was first Sauketa (site unknown), then Hastinapoora (near the Ganges, 57 miles north-east of Delhi), and finally Pautalipootra (Patna). The empire is divided into Vishayas or territories under subordinate princes, and Janapadas or townships. The Vishayas are numerous. The most important in Southern India are:—Calinga (with Godavery for southern boundary); Andhradesha (between the Godavery and Kistna); Dravidadesha (including the kingdoms of Pandya, Chola, Chera, Kerala); Concana (the Northern Canarese coast districts); Coontala (the region near Adony); Vidarbha (Berar); Mooshica (Cochin and Travancore); and Cosala (in Central India). An Aryan kingdom ruled by Cshatriyas and administered by Brahmins undoubtedly existed in Hastinapoora, and formed the foundation of the legend in the Mahabharat of the great war between the Pandavas and the Cooroos, but it is equally certain that such a kingdom had no power in peninsular India. The principal towns of Southern India are Canjy (Conjeeveram) capital of Chola and perhaps afterwards of Chera, Nassica (Nassick) in the Godavery, Raja Mahendra (Rajahmundry) capital of Calingadesha, and Calyaunapoora (180 miles due north of Vijianugger) capital of the Chalookya kings of the Central

portion of Travancore State. This makes about 1,250 miles of coast washed by the Bay of Bengal, Palk Strait, and the Gulf of Manaar. The coast-line on the west commences north at the village of Shiroor a few miles south of Bhatcal

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Deccan. It has been inferred from the scanty mention of towns that the peninsula was a desert; but it is more probable that this indicates want of interest in the population. The mountains of Southern India are:—Shreesheilas (not identified) and Vencataudry (not identified); Neelaghiry (Neilgherries), the portion where the Malaya (southern part of the Western Ghauts) and the Sahya (northern part of the Western Ghauts) meet; Mahendra (the Eastern Ghauts between the Godavery and the Mahanuddy); Vindhyas; Ricsha (mountains of Gondwana); Veidoorya (southern portion of the Vindhyas); Malaya above-mentioned; and Sahya above-mentioned. Mention is made of the Dandacaranya forest south of the Vindhya mountains, through which Rama passed. The Chilka lake is mentioned as existing in the Carnautaca country. Lakshadweepa (the Laccadives) are mentioned as islands on the Malabar coast, and Rameshwara (Rameshwaram) as an island in Palk's passage. The Sanscrit writers divided the rivers of the country into two classes; Nada or those which flowed north or west, and Nadee or those which flowed east or south. The former were more sacred than the latter, showing that peninsular India was of subordinate interest. The following South Indian rivers are mentioned:—the Tambrapurny (Porny), Kritamaulah (not identified), Pooshpaja (not identified), and Ootpalavatee (not identified), rising in the Malayaparvata (southern portion of Western Ghauts); Godavery, Kistna, Venah (not identified), Veiyoola (not identified), Toongabudra, Bhoomarathy (not identified), Sooprayogah (not identified), Vahyah (not identified), and Cauvery, rising in the Sahya mountains (northern portion of Western Ghauts); Narmadah (Nerbudda) rising in the Vindhya mountains, and flowing through Heihaya (not identified). Dacsha the confluence of the Kistna and Venah is mentioned. The following places are mentioned as sacred:—Triyambacanaudha (near Nassick on the Godavery), Mullicarjoona on Srisheilam mountain in Kurnool district, Rameshwara in Madura district near Adam's Bridge, and Canjy (Conjeeveram). The Sanscrit authors of the Pooranas writing in the north described Ceylon as much more extensive than it now is, and as stretching especially towards the west and south; thereby not representing no doubt the fact in Pooranic times, but embodying nevertheless traditions current among Indian nations. The Sanscrit astronomers placed their chief meridian in Lunka, but it was a line to the west of the present Ceylon. These remarks bear on the theory that in the most ancient times there was a connection between Southern India and Madagascar. It also accords with the local tradition recorded by the Booddhists which state that Ceylon was gradually contracted by submergence. The date assigned to the Noachian deluge of Scripture is 2348 B.C. That of the severance of Ceylon from the mainland according to the Booddhists is 2387 B.C. The Rajauvaly, one of the Ceylon sacred books, records in detail a great submergence on the west, and a tradition exists that the Great and Little Basses rocks on the east are left by an eastern submergence. (14) *Conclusion.*—It is to be observed that though the long list of names mentioned in the Pooranas are all Sanscrit, these are only book names. The names of the country reported or ascertained by Aryan travellers and settlers were invariably translated into Sanscrit by the literary caste of the Aryans. It is a very common error to suppose that because none but Sanscrit names are found in the ancient literature of the country, it was therefore a country occupied by an Aryan people, and that all the places mentioned were founded by Aryans. But in fact as the Aryan visitors to India had the monopoly of literature, the indigenous names could only appear in a Sanscrit form; and no argument is to be thence deduced in one direction or another as to the extent of the Aryan colonizations. In later times Aryan influence has undoubtedly given current names to geographical places, even in Southern India. Appendices XXIX and XXX in Volume II have been introduced with a view to showing the exact extent to which this has taken place. But in the time of the Pooranas it is doubtful how far this was the case. Few of the names can now be identified. It will be seen from the next note that Greek literature is analogous to Sanscrit in presenting indigenous Indian names in such a Greek dress that they are not easily recognizable; but the Greeks did not at all to the same extent actually translate Indian names. The accompanying map shows roughly the geography of Southern India as indicated by the Sanscrit writers.

[[2]] SKETCH ACCOUNT OF THE ANCIENT GEOGRAPHY OF SOUTHERN INDIA ACCORDING TO THE GREEK AND ROMAN GEOGRAPHERS.—*Introduction.*—The view of the Greeks as to Indian geography was obtained mostly from hearsay, and as to any general conception of the country was erroneous and distorted. Further the greater number of their geographers were concerned with Northern India, and make very little mention of the South. At the same time with a view to the great deficiency of written records among the Hindoos, the information given by the Greek literature is the best available for the period to which it relates. More general remarks as to the knowledge of Southern India possessed by the Greeks will be reserved for a later note under the head of History. Here will be entered only such remarks as contribute to the construction of the ancient map of the country. The principal Greek and Latin authorities on Indian geography are as follows:—Hecataeus of Miletus (549–486 B.C.), Herodotus (484–405 B.C.), Ctesias (circ. 400 B.C.), Megasthenes (circ. 302 B.C.), Eratosthenes (276–196 B.C.), Hipparchus (circ. 150 B.C.), Strabo (B.C. 66, A.D. 25), Pliny the Elder (23–79 A.D.), Pomponius Mela (circ. 43 A.D.), the Periplus of the Erythræan Sea (circ. 80 A.D.), Arrian (circ. 130 A.D.), Marinus of Tyre (second century A.D.), Ptolemy (second century A.D.), and Cosmas Indicopleustes (circ. 560 A.D.). (2) *Hecataeus.*—Hecataeus of Miletus (549–486 B.C.) was one of the earliest and most distinguished of Greek historians and geographers. His geographical work περίοδος γῆς has an Asiatic section περιήγησις τῆς ἀσίας; in which some reference is made to India, but not to the south. His work exists only as fragments extracted from other writers; it is not certain therefore that Southern India was wholly unknown to the Greeks in his time. Northern India west of the Indus was first annexed to the Persian empire by his immediate contemporary Darius; but commerce with the south by sea from Egypt and Arabia was much more ancient than this. The fragments of Hecataeus mention the ἰνδοί and the ἰνδὸς river; ἀργάντη πόλις ἰνδίας (not identified); the people of ὠπία on the banks of the ἰνδός; the γανδάραι (inhabitants of the region of Candahar) and their city Caspapyrus (which name is held by some to be identical with Cashmeer); and the καλατίαι (not identified). (3) *Herodotus.*—Herodotus (484–405 B.C.) was no studied geographer, and the fact that in the desultory geographical remarks contained in his history Southern India is not mentioned will not be sufficient evidence to show that the country was unknown to his contemporaries. He follows the old Greek tradition that there were Indian as well as African Ethiopians. Thus Homer (*Od.* I. 23, 24), αἰθίοπες τοὶ δίχθα δεδαίαται ἔσχατοι ἀνδρῶν, οἱμεν δυσομένου ὑπερίονος οἱ δ' ἀνιόντος; a tradition which, though it is usually ascribed to ignorance, may not have been far removed from fact. Further Herodotus distinguishes between the Æthiopians and the other occupants of the Indian continent. He was aware that there was a traffic with the west coast of India down the Red Sea; but he calls that sea the Arabian Gulf, and with him the Erythræan or Red Sea was what is now called the Arabian Sea, or the water between India and Arabia. He says (iii. 94) ἰνδῶν δὲ πλῆθός τε πολλῷ πλεῖστόν ἐστι πάντων τῶν ἡμεῖς ἴδμεν ἀνθρώπων, καὶ φόρον ἀπαγίνεον πρὸς πάντας τοὺς ἄλλους. And again he speaks of the Thracians as the greatest and most numerous people 'next to the Indians.' But the tribute mentioned relates to that paid to Darius, and it is probable therefore that the Persian power had in some form or other occupied or brought with it a knowledge of a considerable part of India. A voyage by one Scylax of Caryanda in the Arabian Sea between India and Egypt is narrated by Herodotus. He too mentions the γανδάραι and the καλατίαι; the latter probably an early northern tribe. (4) *Ctesias.*—This writer (circ. 400 B.C.) resided for many years at the court of Artaxerxes Mnemon as physician, and during his stay collected materials on India which he published in a treatise called τὰ ἰνδικά, the first work on the subject then extant. It was however rather a description of natural history, men, and manners, than a geography. The work is lost. His περίπλους 'ασίας is also lost, which might have given information as to the west coast of India. Photius made an abridgment of the ἰνδικά, which still remains. Until 1823, the fragments and other remains of Ctesias were published as an appendix to the works of Herodotus. Ctesias wrote the first treatise on India, and possibly a περίπλους of these shores; but he does not seem to have been esteemed as a geographer. Aristotle a little later says of him, ὡς φησι κτησίας, οὐκ ὢν ἀξιόπιστος (Hist. An. viii. 28). (5) *Megasthenes* (circ. 302 B.C.).—On the advance of Alexander the Great (B.C. 327) through Bactriana to the banks of the Indus, a new light was thrown on the geography of India. A number of writers, some of them officers of the army, devoted themselves to making what would now be called route-surveys. None of these works are extant, but their contents were embodied by later writers. ταπροβάνη or Ceylon was known to these writers. Megasthenes a little later (302 B.C.) requires special


MAP
Shewing so much of the
Geography of Southern India
as can be ascertained from the
Sanscrit Pooranas
Scale 1/186⅔ Inch to the Mile
or 1/11827200 of nature
Miles
30
75
85
20
10
VINDHYA MTS
VINDHYAMOOLICAS
DANDAGARANYA FOREST
VEIDOORYA MTS
(S. Vindhyas)
HEIHAYAS
COSALA
Mahanuddy R.
Narmadah (Nerbudda)
Taply R.
VIDARBHA
(Berar)
RICSHA MTS
Nassica (or Nassick)
Triyambacanaudha
SOWRIKIRNAS
SABARAS
(Sowrahs)
CHILKA LAKE
Rooshecolya R.
ANDHRA DESHA
CALINGA
Bheemratee R. (Beema)
Calyaunapoora
Rajah Mahendra
(Rajahmundry)
Godavery R.
MAHARASHTRA
(Mahratta Country)
TRILINGA
(Teloogoo Country)
CARNATACA
(Canarese Country)
Kistna R.
Mullicarjoona
SAHYADRY MTS
CONCANA
Toongabudra R.
ABHEERAS
COONTALA
(Adony District)
MAHENDRA MTS
(E. Ghauts)
(W. Ghauts)
KERALAS
MAHISHACAS
Canchy
(Conjeeveram)
Mahy R.
CHOLA
NEELAGIRY MTS
(Neilgherries)
Cauvery R.
MALAYAR
DRAVIDA
(Tamul Country)
PANDYAS
Vaigavatee R.
(Veigay)
RAMESWARA ISLAND
(Rameswaram)
Collagiry
(Quilon)
MOOSHICA
(Cochin & Travancore)
Tambrapurny R.
(Porny)
LAKSHADWEEPA
ISLANDS
(Laccadives)
LUNKA
(Ceylon)

near the Honore estuary, being the boundary between the Bombay district of North Canara and the Madras district of South Canara, and gives a boundary successively to the South Canara and Malabar districts and the Cochin and

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mention. He had the same information as the military writers just mentioned, and possibly accompanied Alexander to India. He comes into notice however only as an ambassador from Seleucus Nicator of Babylon to Sandracottus or Chundragoopta of παλιμβόθρα or Pautalipootra near the modern Patna in Bengal. It being desirable to maintain amicable relations with this native ruler Megasthenes was despatched as a representative of the Syrian monarchy, and having arrived in India remained for some time at Pautalipootra in that capacity. Megasthenes was perhaps the first Greek who reached the Ganges, and he too wrote his ἰνδικά; but preserved now only in fragments. The direct information gained by him was confined to the two valleys or plains of the Indus and Ganges, and probably Chundragoopta's kingdom did not extend south of the Vindhyas. But he obtained a better idea of the general configuration of the country than any of his predecessors. Thus while Ctesias had asserted that India was equal in extent to the whole of the rest of Asia, and even one of the Macedonian writers had described it as a third of the inhabited world; Megasthenes greatly reduced its dimensions. He was also the first to point out that its width east and west was less than its length north and south. According to one of the most precise of the fragments his dimensions were 16,000 stadia width by 22,300 stadia length; say 1,836 and 2,559 miles. The real dimensions of Hindostan are about 1,500 by 1,800 miles. He regarded the whole shape of the country as rhomboidal, that is to say as a parallelogram with irregular sides and angles. He was aware that a great part of it was peninsular, and he collected some geographical information regarding Ceylon in the extreme south. He knew by name the Dravidian Pandya kingdom and the town of Madura. He mentions fifteen tributaries of the Indus and nineteen of the Ganges; and says that India contains 118 nations and innumerable cities. Translations of some of the more precise extracts from other authors where Megasthenes is quoted or paraphrased are given in Vol. II, App. IX. (6) *Eratosthenes.*—This writer (276–196 B.C.), the head of the library at Alexandria, was the first geographer that made a systematic arrangement of the divisions of the earth. He drew a series of parallels of latitude, of which the most southern passed through Taprobane or Ceylon, the second through the south coast of India, the third through Palibothra near Patna, and the fourth through the Ganges and Indus; also seven parallels of longitude or meridians, of which the second passed through the mouths of the Ganges, and the third through the mouths of the Indus. The intersection of these meridians and latitudes however formed right angles, nor were they equidistant. The breadth of India was made 16,000 stadia, and the length of Taprobane 5,000 stadia. Eratosthenes conceived the projecting angle of the peninsula to incline to south-east. He knew Cape Comorin as the promontory of the κωνιακοὶ or κωλιακοί; a name perhaps connected with Korkay near the mouth of the Tambrapurny, once the centre of the pearl-trade and the capital of the earliest known Dravidian kingdom. Korkay was formerly on the sea-coast, but is now five miles inland. Cauyal superseded it as a port, but this in turn has retired two miles inland. Later Greeks called this κόλχοι ἰνδικοί, to distinguish it from Colchis on the Euxine. Eratosthenes was aware of the changes which occur in the formation of continents, and asserted an ancient connection between Europe and Africa at the Straits of Gibraltar. (7) *Hipparchus.*—This writer (circ. 150 B.C.) the father of Greek astronomy, followed the geography of Eratosthenes. He is known only at second-hand by fragments. He requires mention on account of the significant view held by him that Taprobane was no island, but the commencement of another continent extending to the south and west. For several centuries the prevalent idea in Greece had been that Africa and Southern India were in some way connected. It was held however that the connection was to the south-east. (8) *Strabo.*—Of the seventeen books of this author (B.C. 66, A.D. 25) who was the first true geographer, the greater part of the 15th book treats of India. Though there had been an interval of two centuries since Eratosthenes, and three centuries and a half since the Macedonian writers, Strabo had no further information; and his work as regards India is merely an epitome of the writers already named. It appears from an entry (στάδιοι μὲν καὶ περιπλεύκασι μέχρι τοῦ γάγγου) that the circumnavigation of Cape Comorin from west to east was not unheard of. He speaks of a large trade between the west coast and the Red Sea ports. Strabo held Taprobane to be an island, not smaller than Great Britain. (9) *Pliny the Elder* (23–79 A.D.)—This author, who was a Latin contemporary of Strabo, added somewhat to the geographical knowledge previously acquired, by incorporating into his works the results of different expeditions sent out by the earlier Roman emperors. He made India 3,300 Roman miles long, and 2,306 Roman miles broad, and says that it contains 118 peoples and 60 rivers. He connected the Emodus (Himalayas), Imaus (Heimava), Paropamisus (Hindoo Coosh), and Caucasus in one connected chain from east to west; stating that south of these mountains the land was one vast plain, comprehending many wastes and much fruitful land. Pliny mentions the Ganges and Indus. Among nations he mentions the Prasians of Palibothra (Patna), and the Calingæ, at the mouth of the Ganges; this nation seems to have occupied Bengal and Orissa, where a trace of them still survives in Calingapatam. Pliny's account of the west coast is accurate, and agrees with the περίπλους. He mentions Mouziris (Greek μούζιρις) ruled by a king named Cælobothras; Barace (Greek βαράκη), under king Pandion (Greek πανδιών), who resided at the city of Modura, now Madura. Pliny also mentions Sigerus which may be the μελιζειγάρα of the περίπλους. For a fuller account of Taprobane than had been given by previous writers, Pliny was indebted to an accidental circumstance. A Roman freedman named Annius Plocamus while on a voyage round Arabia, was carried by contrary winds to Ceylon. The king received him hospitably, and finally sent him back to Rome accompanied by four envoys to the Emperor Claudius. From these envoys Pliny learnt that Taprobane had towards India a length of 10,000 stadia, and that it contained 500 towns, of which the largest was Palaesimundum with 200,000 inhabitants. The only other place mentioned is Hippuro, horse-mountain in Greek, which has been identified with Coodireymullay meaning the same thing in Tamul. In the interior was a vast lake, named Megisba, 375 miles in circumference; from which flowed two rivers called Palaesimundus and Cydara. This statement probably refers to the chain of artificial tanks near Trincomalee, but their dimensions must have been greatly exaggerated. The nearest point of India to Taprobane was a promontory called Coliacum (Cape Comorin), at a distance of four days' voyage. The sea between the island and the mainland is described as being very shallow. (10) *Pomponius Mela* (circ. 43 A.D.).—This Latin author's knowledge of India is extremely vague and imperfect. He gives a brief summary of the current stories relating to this country, such as the gold-seeking ants, &c., and of the manners and customs of its inhabitants, all derived from the ordinary Greek authorities; but his general description of its geography is confined to a short account of the Ganges and Indus, and an obscure reference to the promontory of Colis, where the coast turned from the eastern to the southern sea. He computes the whole extent of the shores of India at a voyage of sixty days and nights. With regard to Taprobane he seems disposed to adopt the opinion of Hipparchus, that it was not merely a large island, but the commencement of another world. (11) *Periplus of the Erythræan Sea.*—Very nearly contemporary with the Latin author Pliny or about 80 A.D., was the anonymous treatise known as the περίπλους τῆς ἐρυθρᾶς θαλάσσης. It is not a mere coast survey like the Periplus of Scylax above-mentioned; nor is it a journal or log of an individual voyage, of which there are examples. It is a species of manual for the instruction of navigators and traders in the Erythræan Sea, that is to say the whole of the sea between Egypt and India; and along the coasts of Africa outside the Straits of Babelmandeb as far as they had been then explored, the coast of Arabia, and the coast of India from the Indus to the Ganges. It describes in more or less detail the geography of the different coast lines with their several ports, and the prominent natural features of different sites. The exports and imports of each port are recorded. The author was a Greek merchant who had settled at Berenice a seaport at the southern extremity of Egypt, and had made voyages thence to Eastern Africa, Arabia and India. This treatise has been ascribed to Arrian, but it bears internal evidence of not having been the work of a professional writer. In this work, as well as in Pliny, is mentioned the incident of Hippalus, the Greek pilot; who having observed the regularity of the monsoons committed himself in a direct course from the promontory of Sygarus (Cape Fartak) in Arabia to the coast of India, thus avoiding the long circuit by the entrance of the Persian Gulf, the coast of Gedrosia, and the mouths of the Indus. This may have been half a century before. The example was soon followed by other navigators, and by the author of this Periplus himself. The text of the Periplus is scarce. As far as it relates to the coast line of Southern India, it will be found given in the original in Vol. II, App. VII. It is certainly the most valuable contribution to the knowledge of the geography of ancient Southern India prior to the seventh century A.D., which is in existence. The following are abstracts and quotations, interspersed with some remarks. India commences from the mouth of the σίνθος (Indus) which is the largest river in the Erythræan Sea.

Travancore States; this makes a coast-line of about 450 miles washed by the Arabian Sea. · On every side but the north, the Presidency is washed by the open sea. The irregular northern boundary has been formed by accidents of history.

When approaching from the sea, snakes are seen on the surface. The river has seven mouths. Further on comes the Gulf of εἰρινόν (Cutch) hitherto unexplored. It is very shallow and full of eddies. Lower down is the promontory of βαράκη (Jaggat near Dwarca in Goozerat), which is very dangerous for ships. Here again appear snakes large and black. They are also seen along the coast and at βαρύγαζα (Broach) where however their colour is golden. Next to this comes ὁ βαρυγάζων κόλπος (Gulf of Cambay) from which commences the whole of India (i.e., the peninsula) as well as the kingdom of μάμβαρος (probably king of Goozerat). The Bay of Barygaza is narrow and dangerous, the passage on the left being the safer. The mouth of the λαμναῖος (the Namadus of Ptolemy and the modern Nerbudda) is extremely hard to find, owing to the flatness of the surrounding country, and the consequent want of landmarks in the vicinity. The navigation of the river is also very intricate. On this account the Government keeps fishermen in pay with large vessels called τράππαγα and κότυμβα to lie at the entrance of the gulf, and pilot ships to Barygaza. These boats tow ships up to the town, which is 300 stadia from the sea. The violence of the tides is remarkable, for in a moment the bottom is laid bare and the shore becomes dry, and again when the tide returns, the stream rushes in with such force as to break the cables of ships and drive them on shore; this happens usually at full moon. On the east of Barygaza lies ὀζήνη (Oojjein), formerly the seat of Government. From this city all the necessaries of life are brought down to Barygaza in abundance. The season for the voyage to this part of India is in July or Epiphi (i.e., during the south-west monsoon). Southwards from this stretches the region of δαχιναβάδης (the Deccan or Dacshinapata) so called from δάχανος meaning south; the interior comprehends a number of regions, containing large numbers of various wild animals, such as tigers, elephants, and baboons. Two inland marts of note are πλιθάνα (unidentified) and ταγάρα (Deoghar). καλλίενα (Calyaun near Bombay) was formerly an established mart under the sovereignty of Saraganus, but the present chief is Sandanes who has obstructed the commerce of the Greeks (from Egypt), so that if any of their vessels touch there by accident, he puts a guard on board and sends them to Barygaza. Below this the ports in succession are σήμυλλα, μανδαγόρα, παλαιπάτμαι, μελιζειγάρα, τοπαρόν, and τυραννοσβόας (none of which can be identified with any certainty). Next come αἰγίδιοι and καινειταί, close to a peninsula where there are pirates; (during the last century pirates known as the Angrias had their stronghold at Gheriah between Bombay and Goa, near the spot here mentioned). Last of all is λευκὴ νῆσος (White Island). Below this commences the kingdom of the ruler κηπρόβοτος (Cherapaty), which is called λιμυρική. Then follow νάουρα and τύνδις, the first marts of λιμυρική, and after these μούζιρις and νελκύνδα, the seats of Government. "To the kingdom ruled by κηπρόβοτος, "τύνδις is subject, a village of great note near the sea. μούζιρις, which pertains to the same realm, is a city at the height "of prosperity, frequented as it is by ships from ἀριακὴ and Greek ships from Egypt. It lies near a river at a dis- "tance from τύνδις of 500 stadia, whether this is measured from river to river or by the length of the sea voyage, and it "is 20 stadia distant from the mouth of its own river. The distance of νελκύνδα from μούζιρις is also nearly 500 stadia, "whether measured from river to river or by the sea voyage, but it belongs to a different kingdom, that of πανδίων." (Λιμυρική is held as a misprint for Διμυρική, for which see Volume III under the head of Identifications of Greek and Latin Geographical Names. It will then stand for தமிழ் + ική, and mean the Tamul country or South Malabar. The three ports of τύνδις, μούζιρις and νελκύνδα, may then be identified respectively with Cadaloondy near Beypore, Mooyeericode now Cranganore, and Cullada on a river near Quilon. μούζιρις and νελκύνδα used to be identified with Mangalore and Neeleshwar. νάουρα is supposed to have some connection with the Nayar country; it used to be identified with Honore much further north). "At the very mouth of this river lies another village, βακάρη, to which the ships "despatched from νελκύνδα come down empty and ride at anchor off shore while taking in cargo; for the river, it may "be noted, has sunken reefs and shallows which make its navigation difficult. The sign by which those who come hither "by sea know they are nearing land is their meeting with snakes, which are here of a black colour, not so long as those "already mentioned, like serpents about the head, and with eyes the colour of blood." Many ships come here for pepper (πέπερι) and betel (μαλάβαθρον). The voyage from Arabia to this coast was originally performed in small vessels which followed the coast the whole way; but at length one Hippalus observing that at certain times the wind blew steadily in the proper direction for a long period, struck boldly across the sea. "After βακάρη occurs the mountain "called πυρρός (or the Red) towards the south, near another district of the country called παραλία, where the pearl- "fisheries are which belong to king πανδίων, and a city of the name of κόλχοι. In this tract the first place met with "is called βαλίτα, which has a good harbour and a village on its shore. Next to this is another place called κομάρ, "where is the cape of the same name and a haven. Those who wish to consecrate the closing part of their lives to "religion come hither and bathe and engage themselves to celibacy. This is also done by women; since it is related "that the goddess Comaury once on a time resided at the place and bathed. From κομαρεί towards the south the "country extends as far as κόλχοι, where the fishing for pearls is carried on. Condemned criminals are employed "in this service. King πανδίων is the owner of the fishery. To κόλχοι succeeds another coast lying along a gulf "having a district in the interior bearing the name of ἀργάλου. In this single place are obtained the pearls collected "near the island of ἠπιοδώρος. From it are exported the muslins called ἐβαργαρείτιδες. Among the marts and anchorages "along this shore, to which merchants from λιμυρική and the north resort, the most conspicuous are καμάρα and ποδούκη "and σωπάτμα, which occur in the order in which we have named them. In these marts are found those native vessels "for coasting voyages which trade as far as λιμυρική, and another kind called σάγγαρα, made by fastening together large "vessels formed each of a single timber, and also others called κολανδιόφωντα, which are of great bulk and employed for "voyages to χρύση and the γάγγης. These marts import all the commodities which reach λιμυρική for commercial purposes, "absorbing likewise nearly every species of goods brought from Egypt, and most descriptions of all the goods exported "from λιμυρική and disposed of on this coast of India. Near the region which succeeds, where the course of the voyage "now bends to the east, there lies out in the open sea stretching towards the west the island now called παλαισιμούνδου, but "by the ancients ταπροβάνη. To cross over to the northern side of it takes a day. In the south part it gradually stretches "towards the west till it nearly reaches the opposite coast of ἀζανία. It produces pearl, precious, transparent stones, "muslins and tortoise-shell. Returning to the coast, not far from the three marts just mentioned lies μασαλία, the "seaboard of a country extending far inland. Here immense quantities of fine muslins are manufactured. From μασαλία "the course of the voyage lies eastward across the neighbouring bay to δησαρήνη, which has the breed of elephants called "βωσαρή." After leaving μασαλία and δησαρήνη there are passed a variety of barbarous tribes; one of which called κιρράδαι (Kirautas) is distinguished by flat noses, and others by being horsefaced, long-faced, and anthropophagous. Finally comes the γάγγης, the largest river in India; it has an annual increase and decrease like the Nile. There is a mart on it of the same name, with a considerable traffic, and there is also said to be a gold mine in the province. (12) *Arrian.*—This writer was prefect of Cappadocia (circ. 130 A.D.). His two chief works were ἱστορίαι ἀναβάσεως ἀλεξάνδρου and τὰ ἰνδικά. The latter is in three parts, the first giving an account of India compiled from Megasthenes and Eratosthenes, the second giving the history of the voyage of Nearchus in the fourth century B.C., and the third being a dissertation on the climate of the most southern part of the globe. Two extracts from Arrian are given in Vol. II, App. VII under the head of Megasthenes. His work is more useful for ethnography than for geography proper. (13) *Marinus of Tyre.*—This Greek geographer was the immediate predecessor of Ptolemy, who borrowed largely from him. Marinus's work on geography is not extant, but some idea of its contents can be gathered from Ptolemy's references. With regard to India, Marinus not only possessed information as far as the southern extremity of the peninsula, but also gave the names, distances, and bearings of a number of points extending far to the eastward, and implying a great extent of country in that direction, wholly unknown to previous geographers. He mentions the promontory of κῶρυ (island of Rameswaram), and the two gulfs ἀργαρικός and γαγγητικός (Palk's Bay and the Bay of Bengal). He also gives the names of many other places on the east coast of India, but these it is impossible to identify with any degree of certainty. Much of Marinus's increased information was due to the journey of a Macedonian trader named Titianus, and to the voyage of a sailor Alexander, who made his way across the Indian Ocean. (14) *Ptolemy.*—Ptolemy of Alexandria or πτολεμαῖος κλαύδιος (second century A.D.) finally summed up the geographical knowledge of the ancients in his γεωγραφικὴ ὑφήγησις. His work was accepted as the text-book of geographical science until the fifteenth century, when the rapid deve-

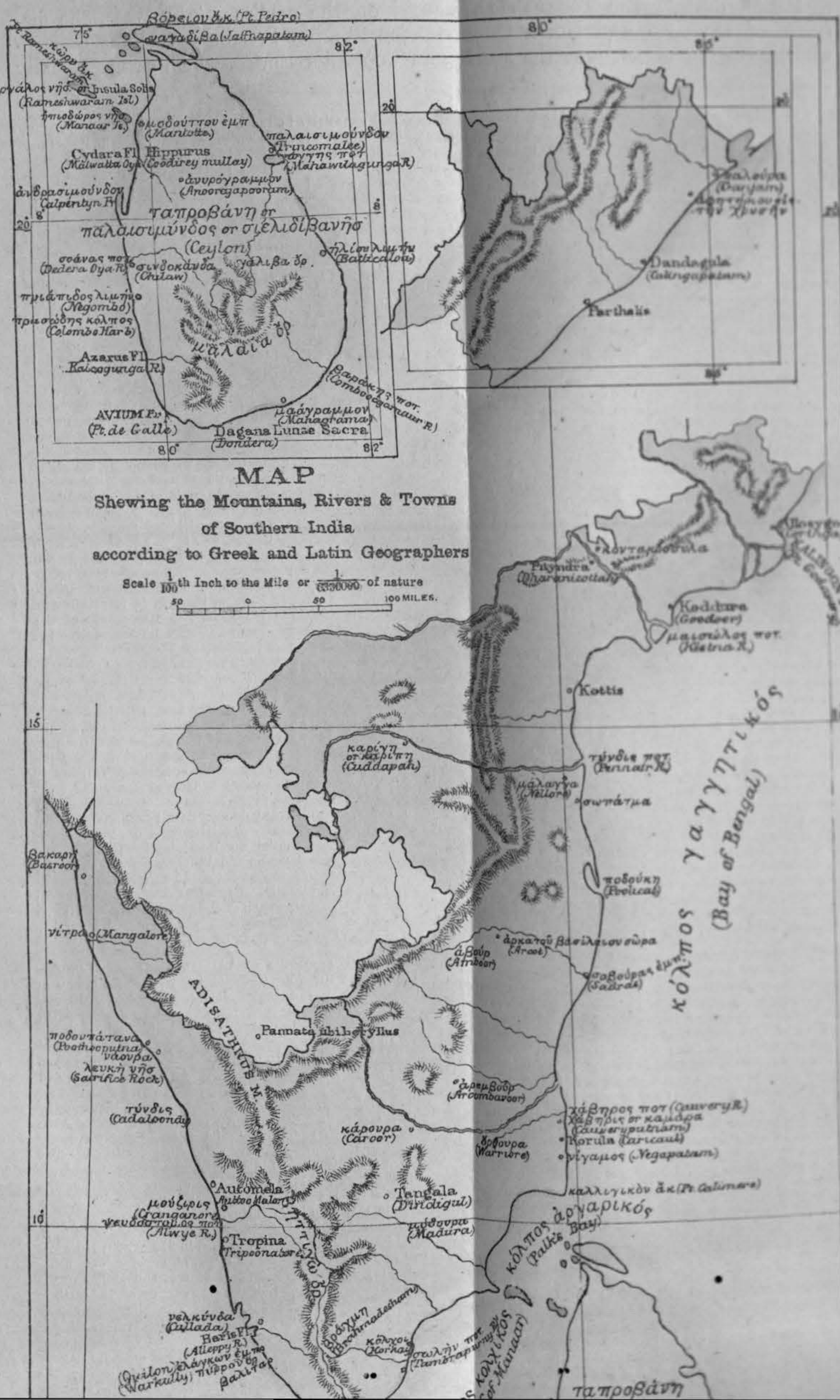
On the extreme north-east is the Bengal province of Orissa; next come the highlands of the Central Provinces; then across the greater part of the peninsula the Dominions of the Nizam of Hyderabad, separated from Madras by the Kistna river

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lopment of maritime discovery superseded it, and inaugurated the modern geographical era. His work is a species of geographical index, not much being given beyond a catalogue of names with computations of latitude (πλάτος) and longitude (μῆκος). The geodetical labours however of this author and his predecessor Marinus form one of the most important departures in the history of human knowledge. Ptolemy divided India into:—"a" ἰνδία ἐντὸς τοῦ γάγγου, bounded on the west by the Paropamisadæ, Arachosia and Gedrosia; on the north by the Imaus; on the east by the Ganges; and on the south by part of the Indian Ocean: "b" ἰνδία ἐντὸς τοῦ γάγγου, bounded on the west by the Ganges; on the north by Scythia; on the east by the Sinæ; and on the south by the Indian Ocean. From this it follows that he held the Ganges to flow nearly due north and south. The principal mountains of India proper (ἰνδία ἐντὸς τοῦ γάγγου) mentioned by Ptolemy are:—παροπάνισος (Hindoo Coosh), ἴμαον ὄρος (Heimava), ἠμωδός (Himalaya), βηττιγώ (the Southern Ghauts, of which a leading point is called by the Sanscrit writers Agastya's Hill, but by the Tamuls பொதியம்), οὐίνδιον ὄρος (the Vindhyas), σαρδώνυξ (probably the Sautpooras), and ἀπόκοπα (perhaps the Aravullies). The principal promontories are:—κῶρυ (the point of Rameswaram), καλλιγικόν (Point Calimere), κομάρια (Cape Comorin), Calæ Carias or Callicaris, between the towns ἀναμάγαρα and μούζιρις, σιμύλλα (perhaps Cape St. John), and μαλεώ ἄκρον (the southern termination of Cutch). The principal gulfs and bays are:—γαγγητικός (Bay of Bengal), ἀργαρικός (Palk's Bay), κολχικός (Gulf of Manaar), βαρυγάζηνος (Gulf of Cambay), and κάνθι (probably Gulf of Cutch). The chief rivers are the γάγγης and ἰνδός; others mentioned are the Adamas (Brahmanee), δωσάρων (Mahanuddy), μάισωλος (here taken to be the Kistna), τύννα (here taken to be the Pennair disemboguing near Nellore), σωλήν (Tambrapurny), and χάβηρος (Cauvery), along the west side of the Bay of Bengal; and the ναναγούνα (Tapty), and ναμάδας (Nerbudda), flowing into the Indian Ocean. Tribes and cities mentioned by Ptolemy are:—the γαγγαρίδαι, with their chief town γάγγη, near the mouth of the Ganges; the Calingæ, with their chief towns Parthalis and Dandagula (here taken to be Calingapatam); the μαισώλοι, occupying the country now known as the Circars, with their chief towns πίτυνδρα (Dharanicottah), κοντακόσσυλα (said to be Masulipatam but probably more inland), and ἀλλοσύγνη (Coringa); west of the μαισώλος (Kistna), the ἀρούαρνοι, chief town μάλαγγα (asserted to be Mundarajya, the modern Madras, but more likely Nellore); next the Chola kingdom, the following references to which may be mentioned, σῶραι νομάδες, (the Cholas, a northern portion of the Tamulians), ἀρκατοῦ βασίλειον σῶρα (the king being perhaps confounded with the place Arcot), ὄρθουρα βασίλειον σώρναγος (Warriore, capital of Chola Naick), and παραλία σωρητῶν and παραλία σωριγγῶν (the coasts of Tinnevelly and Madura). The Pandya kingdom (πανδίονος χώρα) is also mentioned as a district of great wealth and importance; it is represented as extending from the Chola kingdom to the southern extremity of the peninsula, and having for its capital μόδουρα (Madura). In the same region are the βάτοι (not identified), the καρεοί (Tinnevelly coast tribes), and the inhabitants of κόλχοι (Korkay). At the south-west end of the peninsula were κοττιάρα (probably Cotore in South Travancore, but perhaps Cochin), and κομαρία (Comorin). On the western coast were λιμυρική (Malabar) with its chief towns κάρουρα (probably Caroor) and τύνδις (Cadaloondy). Along the coast were νίτρα (Mangalore), and μανδάγαρα (more north); while inland was the district of ἀρίακα σανδανῶν, with its chief towns ἱππόκουρα (Nundair in Hyderabad), βαίτανα (Beedar), σίμυλλα (near Bassein), ὀμενόγορα (Ahmednugger), and τάγαρα (Deoghar). Further north was the district of λαρική, extending from the ναμάδας (Nerbudda) to βαρύγαζα (Broach); its chief towns being ὀζηνή (Oojjein), μιναγάρα, and βαρύγαζα, the most important trading town in Western India at that time. North of λαρική was συραστρηνή (Goozerat) to the west of the Gulf of Cambay; and still further to the west at the mouths of the Indus was παταληνή (Lower Scinde), with its capital παταλή (Tatta). The above-mentioned names can be more easily identified, owing to their situation on the sea coast. It is more difficult to determine the exact site of many of the tribes mentioned as existing in the interior of the country. This difficulty is much increased by the error of reckoning which prevails throughout Ptolemy, as he has made the coast-line of India run almost in a straight line from the mouth of the Indus to the mouth of the Ganges. Reasons for this mistake are, that he assigned an erroneous value of 500 Olympian stadia (about 57 English miles) instead of 600 Olympian stadia (about 68 English miles) to an equatorial degree, and that he over-estimated road distance when converting it into map-measurement. But the chief cause of his error is the excess which he allowed for distances of land-journeys over those of sea-voyages. If the measures of distance by sea had been increased in the same proportion, all the places would have retained the same relative positions. But the consequence of this unequal estimate of the value of land and sea distances was to throw all the places determined by land measurement too far to the east, and as this error continued to increase the further he advanced, his Eastern Geography is wholly vitiated by it. Thus Taxila, which is almost due north of Barygaza, is placed 11° to the east of the latter; and the mouth of the Ganges, which was fixed by land measurement from Taxila and Palibothra, is placed 38° to the east of the mouth of the Indus, the true difference being only 20°. The following nations in the interior of Southern India may be mentioned:—the βραχμάναι μάγοι, with their city βράχμη (perhaps Brahmadesam near the source of the Tambrapurny), the ἀμβάσται and the τάβασσοι. Ptolemy also mentions κηροβόθρος (Cherapaty), the ruler of the Kerala country. Ptolemy gives a considerable amount of information about ταπροβάνη (Ceylon), though very few of the names mentioned by him can be identified. He however was considerably at fault regarding the size of this island, which he estimated as extending through fifteen degrees of latitude, and twelve degrees of longitude, an area fourteen times too large. Ptolemy says that the island was formerly called Palaesimundi, but in his own time Salice. The above is a most imperfect account of the Ptolemæan geography of Southern India; and the subject admits of great amplification by any one who will be at the trouble to consult the original, adding to that investigation a knowledge of the localities. (15) *Cosmas Indicopleustes.*—The latest Greek author who mentions India is Cosmas Indicopleustes (circ. A.D. 560). He was an Egyptian monk who flourished in the reign of Justinian. In early life he was a merchant and in that capacity visited most of the countries of the East. His chief work is τοπογραφία χριστιανική, the object of which is to show that the earth is not spherical, but a vast oblong plain surrounded by ocean. He gives a specially full and accurate account of Ceylon, which he calls σιελεδίβα. He says that the island is 900 miles in length, and as many in breadth, and that it is governed by two kings. He also mentions a church of Christians from Persia (Nestorians) in Ceylon, and another in μαλέ (Malabar) with a bishop at καλλιανά (Calyaun, an ancient coast-town not to be mistaken for Calyaunapoora in the centre of the Deccan). The trade from India, Persia, and Ethiopia seems to have been extensive. The chief trading districts in India mentioned are μαλέ, 'where the pepper grows' (the Malabar Coast); and σίνδος (Scinde) 'the country of musk.' Among the towns given as the trading towns of India several end in πάτανα, which is plainly the Tamul பட்டணம். His πουδοπάτανα in the district of μαλέ (Malabar) is clearly to be identified with the ancient town പുതുപട്ടണം. on the Malabar coast, which has long been regarded by native authorities as the northern boundary of the Kerala kingdom. About five days journey, from μαλέ is σιελεδίβα. (16) *Conclusion.*—The results to be gathered from all these writings in the way of places identified in Southern India are embodied in the accompanying map, to which reference should be made. The whole information is given in tabular form with remarks in Volume III under the head of Identifications of Greek and Latin Geographical Names. Christopher Cellarius published in 1703 and 1706 (Cambridge and Amsterdam) two volumes containing an epitome of ancient geography; an extract from this relating to Southern India will be found at Vol. II, App. VIII.

[3] Sketch Account of the Ancient Geography of Southern India according to Chinese Authors.—*Introduction.*—Two Chinese travellers, named Fa-Hian and Hwen Thsang, who visited India at an early date, have left some account of the geography of the country from their point of view. (2) *Fa-Hian.*—Fa-Hian visited India between A.D. 399 and 414. He mentions the Madhyadesa (central region), and the kingdoms of Matoora, Canouj, Cosala, and Magadhah. After living three years in Pautalipootra (Patna), during which time he visited Capila, Rajagriha, and Benares, Fa-Hian finally sailed down the Bay of Bengal to Ceylon from the mouth of the Hooghly, and thus returned to China. His 'Ta-thsen' is held to represent the Dacshina or Deccan, and he may have known the Pallava people. He did not however visit this Presidency itself which he only refers to in connection with Ceylon. (3) *Hwen Thsang.*—The earliest comprehensive account of the geography of Southern India specially is that of Hwen Thsang, who passed seventeen years (A.D. 629-645)

To be substituted for pages 9 and 10 of the leather bound copy of the Preliminary Articles of the Madras Manual of Administration.

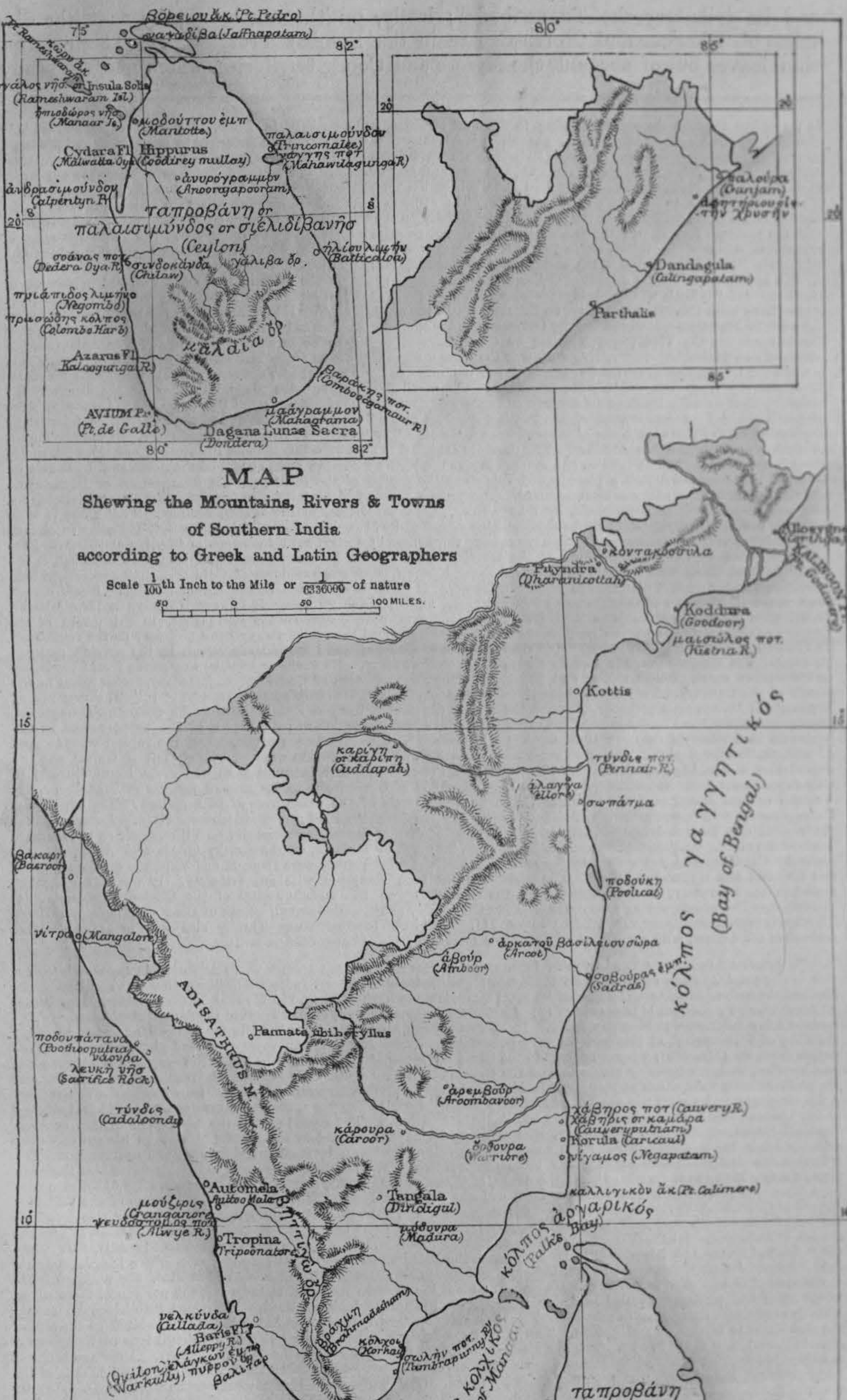


and its tributary the Toongabudra; lastly, on the north-west by west, the districts of Dharwar and North Canara in the Bombay Presidency. This description leaves out of account the Mysore and Coorg territories, which geographically

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in travelling through the countries lying to the west of China, and especially in India. His chief object was to study Booddhism, but his observations on the geography and history of the country are characterised by minuteness and precision. According to this writer, Southern India in the seventh century was divided into nine kingdoms:—Calinga, Cosala, Andhra, Dhanacataca, Choolya, Dravida, Malacoota, Concana, and Maharashtra. But Southern India as so described was larger than the Madras Presidency, and comprised the whole of the peninsula south of the Tapty and Mahanuddy rivers, from Nassick on the west to Ganjam on the east. "*a.*" The capital of the Calinga kingdom was then about 250 miles south-west of Ganjam, probably either the present Rajahmundry on the Godavery or Coringa on the sea-coast; and it is stated that the previous capital was the present Chicacole. The principal feature in this country was the Mahendra range of mountains, which still possesses the same name. They now divide the Ganjam district from the valley of the Mahanuddy. Rajahmundry was the capital of the eastern branch of the Chalookya kingdom, which extended to the borders of Orissa. A still earlier name for the capital of Calinga was Sinhapoora, probably the place of that name now 115 miles west of Ganjam. "*b.*" Cosala was probably the present Bêrar provinces. Its capital was perhaps the present Nagpore; but it may have been Chanda, Amrávatty, or Ellichpore. In the seventh century it was bounded on the north by Oojjein, on the west by Maharashtra, on the east by Orissa and on the south by Andhra and Calinga. It extended probably from near Boorhanpore on the Tapty, and Nundair on the Godavery, to Ratanpore in Chatisgurh and to Nowagudda near the source of the Mahanuddy. "*c.*" Andhra was the more modern Telingana of the Mahomedans or Teloogoo country as it is now called. Its capital cannot be identified, but Warangal was the capital of Telingana several centuries afterwards. The Godavery river was probably the boundary to the north and east, and the Manjhira branch of the Godavery the boundary to the west. On the west it bordered on the kingdom of Maharashtra. "*d.*" Dhanacataca has been with some probability and by a transposition of the two last syllables in the Chinese text identified as the modern Dharanicottah or Amravatty on the Kistna, the site of the well known "stoopa" or "tope" or Booddhist ring temple. It was also known as Maha Andhra or the Great Andhra. The province extended to about Goolburgha and Penoocondah on the west, and to about Tripatty and Poolicat lake on the south. It was bounded by Andhra and Calinga on the north and by the sea on the east. It is supposed that a place called Vaigy was the capital of the country, while Dhanacataca or Dhanacacota was the seat of a large religious establishment. The present town of Amravatty was founded, or at any rate established as a subordinate seat of government, by Soorya Deva, Rajah of Orissa, in the twelfth century. "*e.*" There is some difficulty in identifying the state of Choolya, which is described by Hwen Thsang as a small district, 400 miles in circuit. If his account is taken as correct, Choolya is probably the Kurnool country, but if the names of Choolya and Dravida have been transposed by the Chinese editor of the travels, as is supposed by some, then Choolya may be identified as the old kingdom of Chola with Tanjore for capital. Near Kurnool is an ancient town of Zora or Zohaurapooram, which corresponds exactly with the Choolya of Hwen Thsang. If Choolya is placed in the Kurnool district, it will cut off the north-western corner of the province of Dhanacacota, and diminish its area. If however Choolya is identical with Chola, then its position would extend from Shunkerrydroog, near Salem on the north-west, to the mouth of the Cauvery or Coleroon river on the north-east, and from Dindigul on the south-west to Point Calimere on the south-east. The former supposition is here taken. "*f.*" The province of Dravida was 1,000 miles in circuit in the seventh century. Its capital was Canchipoora, the modern Conjeeveram on the Palaur. Its northern boundary extended from Coondapore on the western coast, through Cadoor and Tripatty, to the Poolicat lake, and its southern boundary from Calicut to the mouth of the Cauvery. This was perhaps the dominion of the Pallava tribe at that period. "*g.*" The province of Malacoota or Malayacoota probably included the modern districts of Tanjore and Madura on the east, and Coimbatore, Cochin and Travancore on the west. The capital was either Madura, which was the capital of the southern end of the peninsula in Ptolemy's time, or Quilon. A town named Charitrapoora to the north-east of the capital was the port of embarkation for Ceylon. This town must have been Negapatam if Madura was the capital, but if Quilon was the capital then it would be Ramnaud. "*h.*" The province of Concana probably extended along the coast from Vingorla to Coondapore near Bednore and inland from the neighbourhood of Goolburgha to the ancient fortress of Madgherry. It was the ancient kingdom of the Cadambas, who were the rivals of the Chalookyas of Maharashtra. The capital was Concanapoora, which was probably Anagoondy on the northern bank of the Toongabudra river. Anagoondy was the capital of a Yadava dynasty of princes before the foundation of the more modern city of Vijianugger on the southern bank of the river. "*i.*" Maharashtra was bounded on the north by Malwah, on the east by Cosala and Andhra, on the south by Concana, and on the west by the sea. The limits of this territory were Damaun and Vingorla on the sea-coast, and Idalabad and Hyderabad inland. The capital has not been identified with any certainty. It was either Pratishtauna on the Godavery, or Calyaunapoora in the Central Deccan, the ancient capital of the Chalookya dynasty. (4) *Conclusion.*—The accompanying map roughly shows the country as above delineated. Each of the nine kingdoms of Hwen Thsang is more particularly noticed in Volume III. Under the head of Hwen Thsang also will be found a further account of the author, with a specimen of the very remarkable style of these Chinese writers.

[4] Sketch Account of the Ancient Geography of Southern India according to Arabian Authors.—*Introduction.*—The chief Arabian authorities on the ancient geography of Southern India are:—the author of 'The Voyages of Sindbad the Sailor,' Sooliman, Ibn Khoordadba, Al Masoodee, Sheik Aboo Ishak, Ibn Howkal, Rasheedooddeen, Ibn Batuta, Al Idreesee, and Aboolfeda of Damascus. (2) *Sindbad the Sailor.*—The voyages of Sindbad the Sailor (ninth century A.D.) contain a few references to Southern India. In his first voyage Sindbad reaches the country of the Maharajah, probably the King of Vijianugger, at that period a very powerful kingdom. In his fourth voyage Sindbad visits a country where pepper is grown (Malabar), whence he went to the island of 'Nacous' (Nicobars). In the fifth voyage he is shipwrecked on a country, which is probably somewhere on the Concan coast. He again visits Malabar, the peninsula of Comorin, and the pearl-fisheries in the Gulf of Manaar. In his last voyage he reaches Serendib (Ceylon). (3) *Sooliman.* The earliest Arab geographer who gives any account of India is a merchant named Sooliman, who made several voyages to that country and to China. His narrative bears the date 851 A.D. (237 Hijrah). The second part of the work was written by Aboo Zajd-ool-Hasan, of Sirauf, a connoisseur, who although he never travelled in India and China as he himself expressly states, made it his business to modify and complete the work of Sooliman by reading and by questioning travellers. The information contained in these writings may be summarized thus. The inhabitants of India and China agree that there are four principal kings in the world, viz., of the Arabs, of China, of the Greeks, and lastly the Balharah, king of the men who have their ears pierced, this last being the most eminent prince in India. He may be identified as one of the Vallabhy Rajahs of Goozerat. Ceylon is mentioned as the Sarandeeb, and Cape Comorin as Coomaur. The author also mentions the sea of Lar (which washes Malabar and Goozerat), the Lankhabalas or Nicobar Islands, and the Andaman Islands, in the sea of Andaman. (4) *Ibn Khoordadba.*—The next Arab author is Ibn Khoordadba, who died in 912 A.D. He wrote the "Book of Roads and Kingdoms." He also names the Balharah as the greatest king in India, other kingdoms being Jaba, Tafan, Joozr (Goozerat), Ghanah, Rahmee, and Kaumroon. (5) *Al Masoodee.*—Al Masoodee, the author of the "Meadows of Gold," died in 956 A.D. He states that it is the general opinion that India was the portion of the earth in which order and wisdom prevailed in distant ages. After the death of Koresh India was divided into kingdoms among which were Scinde, Canouj, and Cashmeer. India is a vast country; it borders on Zabaj (Java) and extends on the side of the mountains to Khorassan and Scinde. The king of Candahar is called Hahaj. From his dominions comes the river Raeed (Rayee), one of the five that form the Mihraun of Scinde; another river is the Bahautil (Beas). Mooltaun is one of the strongest frontier places of the Mussulmans. (6) *Sheik Aboo Ishak.*—Sheik Aboo Ishak wrote about the middle of the tenth century; his facts are similar to those already stated. (7) *Ibn Howkal.*—Ibn Howkal wrote in 1193 A.D. He only treats of Scinde and the north. (8) *Rasheedooddeen.*—Rasheedooddeen wrote in 1310 A.D. He divides India into nine unequal parts, and describes it as follows. Its shape resembles the back of a crab on the surface of the water. The mounta[ins] appear to stand near each other, like the joints of a spine, and rivers flow at their base. ... Cheen (China) and Macheen, on the west by S...


MAP
Shewing the Mountains, Rivers & Towns
of Southern India
according to Greek and Latin Geographers
Scale 1/100th Inch to the Mile or 1/6336000 of nature
50 0 50 100 MILES.
βόρειον ἄκ. (Pt. Pedro)
(Jaffnapatam)
(Rameshwaram Isl.)
(Manaar Is.)
μοδούττου ἐμπ (Mantotte)
παλαισιμούνδου (Trincomalee)
(Mahawilagunga R.)
Cydara Fl. (Malwatta Oya)
Hippurus (Coodirey mullay)
ἀνουρόγραμμον (Anooragapooram)
ἀνδρασιμούνδου Calpentyn Pt.
ταπροβάνη or παλαισιμούνδος or σιελιδίβανησ (Ceylon)
(Batticaloa)
(Dedera Oya R.)
(Chilaw)
(Negombo)
(Colombo Harb.)
Azarus Fl. (Kaloogunga R.)
(Comboocgamaur R.)
AVIUM Pr. (Pt. de Galle)
(Mahagrama)
Dagana Lunae Sacra (Dondera)
(Ganjam)
Dandagula (Calingapatam)
Parthalis
(Dharanicottah)
Koddura (Goodoor)
(Kistna R.)
Kottis
(Cuddapah)
(Pennair R.)
σωπάτμα
(Barcoor)
(Mangalore)
ποδούκη (Poolicat)
ἀρκατοῦ βασίλειον σῶρα (Arcot)
ἄβούρ (Amboor)
σοβοῦρας ἐμπ. (Sadras)
κόλπος γαγγητικός (Bay of Bengal)
ADISATHRUS M.
Pamata
(Poothoopulna)
λευκὴ νῆσ (Sacrifice Rock)
τύνδις (Cadaloondy)
ἀρεμβούρ (Aroombavoor)
χάβηρος ποτ (Cauvery R.)
(Cauveryputnam)
Korula (Caricaul)
νίγαμος (Negapatam)
κάρουρα (Caroor)
(Warriore)
Automela
Tangala (Dindigul)
καλλιγικὸν ἄκ (Pt. Calimere)
μούζιρις (Cranganore)
(Alwye R.)
Tropina (Tripoonatore)
μόδουρα (Madura)
κόλπος ἀργαρικός (Palk's Bay)
νελκύνδα (Cullada)
Baris Fl. (Alleppy R.)
(Quilon) (Warkully)
(Korkai)
(Tambrapurny R.)
ταπροβάνη (Ceylon)
MANIOLAE (Laccadives & Maldives)
κοττιάρα
κομαρία ἄκ. (Cape Comorin)
κόλπος κολχικός (Gulf of Manaar)
75° 80° 82° 85° 20° 15° 10° 8°

and its tributary the Toongabudra; lastly, on the north-west by west, the districts of Dharwar and North Canara in the Bombay Presidency. This description leaves out of account the Mysore and Coorg territories, which geographically

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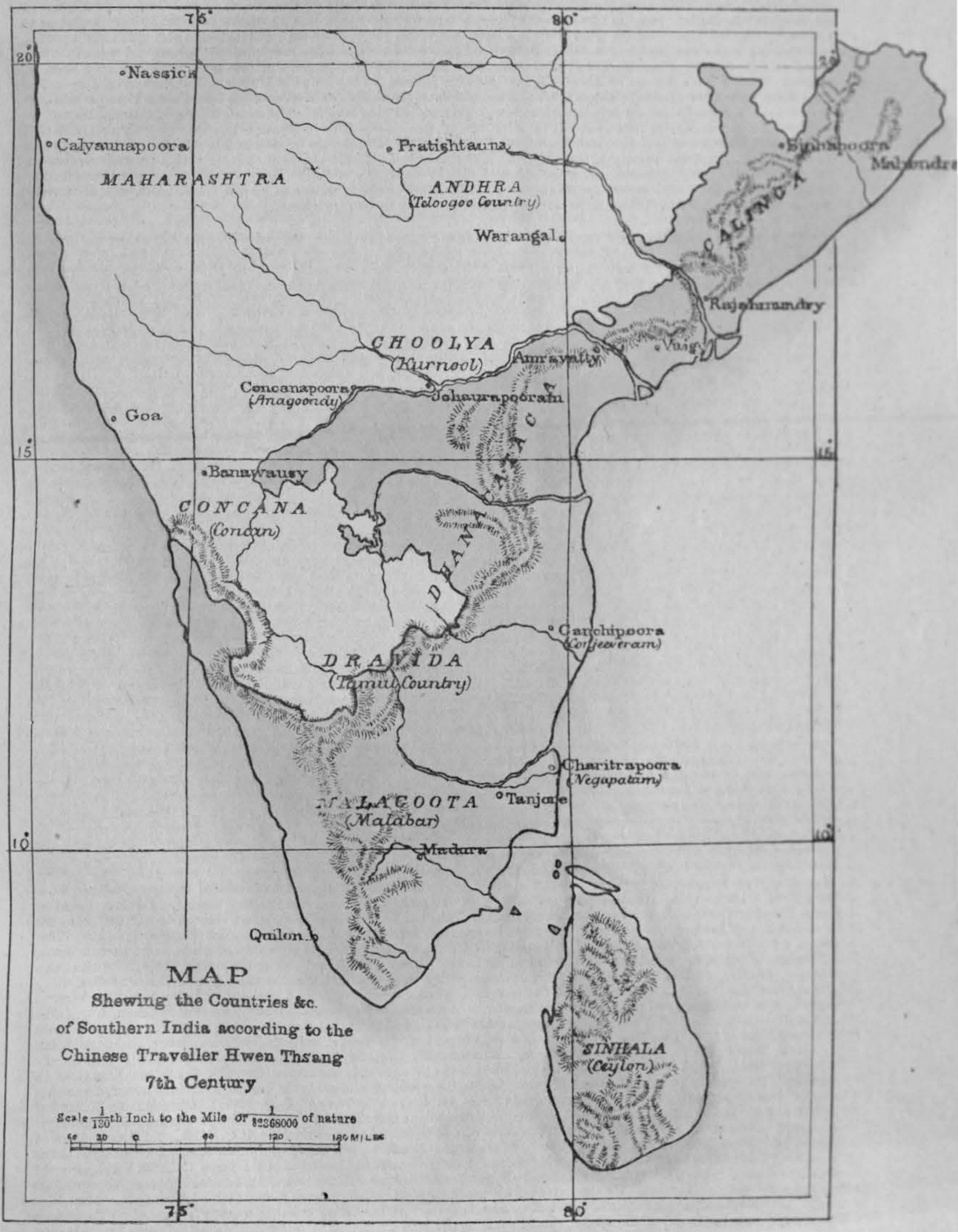
in travelling through the countries lying to the west of China, and especially in India. His chief object was to study Booddhism, but his observations on the geography and history of the country are characterised by minuteness and precision. According to this writer, Southern India in the seventh century was divided into nine kingdoms:—Calinga, Cosala, Andhra, Dhanacataca, Choolya, Dravida, Malacoota, Concana, and Maharashtra. But Southern India as so described was larger than the Madras Presidency, and comprised the whole of the peninsula south of the Tapty and Mahanuddy rivers, from Nassick on the west to Ganjam on the east. "*a*." The capital of the Calinga kingdom was then about 250 miles south-west of Ganjam, probably either the present Rajahmundry on the Godavery or Coringa on the sea-coast; and it is stated that the previous capital was the present Chicacole. The principal feature in this country was the Mahendra range of mountains, which still possesses the same name. They now divide the Ganjam district from the valley of the Mahanuddy. Rajahmundry was the capital of the eastern branch of the Chalookya kingdom, which extended to the borders of Orissa. A still earlier name for the capital of Calinga was Sinhapoora, probably the place of that name now 115 miles west of Ganjam. "*b*." Cosala was probably the present Berar provinces. Its capital was perhaps the present Nagpore; but it may have been Chanda, Amrávatty, or Ellichpore. In the seventh century it was bounded on the north by Oojjein, on the west by Maharashtra, on the east by Orissa and on the south by Andhra and Calinga. It extended probably from near Boorhanpore on the Tapty, and Nundair on the Godavery, to Ratanpore in Chatisgurh and to Nowagudda near the source of the Mahanuddy. "*c*." Andhra was the more modern Telingana of the Mahomedans or Teloogoo country as it is now called. Its capital cannot be identified, but Warangal was the capital of Telingana several centuries afterwards. The Godavery river was probably the boundary to the north and east, and the Manjhira branch of the Godavery the boundary to the west. On the west it bordered on the kingdom of Maharashtra. "*d*." Dhanacataca has been with some probability and by a transposition of the two last syllables in the Chinese text identified as the modern Dharanicottah or Amravatty on the Kistna, the site of the well known "stoopa" or "tope" or Booddhist ring temple. It was also known as Maha Andhra or the Great Andhra. The province extended to about Goolburgha and Penoocondah on the west, and to about Tripatty and Poolicat lake on the south. It was bounded by Andhra and Calinga on the north and by the sea on the east. It is supposed that a place called Vaigy was the capital of the country, while Dhanacataca or Dhanacacota was the seat of a large religious establishment. The present town of Amravatty was founded, or at any rate established as a subordinate seat of government, by Soorya Deva, Rajah of Orissa, in the twelfth century. "*e*." There is some difficulty in identifying the state of Choolya, which is described by Hwen Thsang as a small district, 400 miles in circuit. If his account is taken as correct, Choolya is probably the Kurnool country, but if the names of Choolya and Dravida have been transposed by the Chinese editor of the travels, as is supposed by some, then Choolya may be identified as the old kingdom of Chola with Tanjore for capital. Near Kurnool is an ancient town of Zora or Zohaurapooram, which corresponds exactly with the Choolya of Hwen Thsang. If Choolya is placed in the Kurnool district, it will cut off the north-western corner of the province of Dhanacacota, and diminish its area. If however Choolya is identical with Chola, then its position would extend from Shunkerrydroog, near Salem on the north-west, to the mouth of the Cauvery or Coleroon river on the north-east, and from Dindigul on the south-west to Point Calimere on the south-east. The former supposition is here taken. "*f*." The province of Dravida was 1,000 miles in circuit in the seventh century. Its capital was Canchipoora, the modern Conjeeveram on the Palaur. Its northern boundary extended from Coondapore on the western coast, through Cadoor and Tripatty, to the Poolicat lake, and its southern boundary from Calicut to the mouth of the Cauvery. This was perhaps the dominion of the Pallava tribe at that period. "*g*." The province of Malacoota or Malayacoota probably included the modern districts of Tanjore and Madura on the east, and Coimbatore, Cochin and Travancore on the west. The capital was either Madura, which was the capital of the southern end of the peninsula in Ptolemy's time, or Quilon. A town named Charitrapoora to the north-east of the capital was the port of embarkation for Ceylon. This town must have been Negapatam if Madura was the capital, but if Quilon was the capital then it would be Ramnaud. "*h*." The province of Concana probably extended along the coast from Vingorla to Coondapore near Bednore and inland from the neighbourhood of Goolburgha to the ancient fortress of Madgherry. It was the ancient kingdom of the Cadambas, who were the rivals of the Chalookyas of Maharashtra. The capital was Concanapoora, which was probably Anagoondy on the northern bank of the Toongabudra river. Anagoondy was the capital of a Yadava dynasty of princes before the foundation of the more modern city of Vijianugger on the southern bank of the river. "*i*." Maharashtra was bounded on the north by Malwah, on the east by Cosala and Andhra, on the south by Concana, and on the west by the sea. 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[4] SKETCH ACCOUNT OF THE ANCIENT GEOGRAPHY OF SOUTHERN INDIA ACCORDING TO ARABIAN AUTHORS.—*Introduction.*—The chief Arabian authorities on the ancient geography of Southern India are:—the author of 'The Voyages of Sindbad the Sailor,' Sooliman, Ibn Khoordadba, Al Masoodee, Sheik Aboo Ishak, Ibn Howkal, Rasheedooddeen, Ibn Batuta, Al Idreesee, and Aboolfeda of Damascus. (2) *Sindbad the Sailor.*—The voyages of Sindbad the Sailor (ninth century A.D.) contain a few references to Southern India. In his first voyage Sindbad reaches the country of the Maharajah, probably the King of Vijianugger, at that period a very powerful kingdom. In his fourth voyage Sindbad visits a country where pepper is grown (Malabar), whence he went to the island of 'Nacous' (Nicobars). In the fifth voyage he is shipwrecked on a country, which is probably somewhere on the Concan coast. He again visits Malabar, the peninsula of Comorin, and the pearl-fisheries in the Gulf of Manaar. In his last voyage he reaches Serendib (Ceylon). (3) *Sooliman.*—The earliest Arab geographer who gives any account of India is a merchant named Sooliman, who made several voyages to that country and to China. His narrative bears the date 851 A.D. (237 Hijrah). The second part of the work was written by Aboo Zajd-ool-Hasan, of Sirauf, a connoisseur, who although he never travelled in India and China as he himself expressly states, made it his business to modify and complete the work of Sooliman by reading and by questioning travellers. The information contained in these writings may be summarized thus. The inhabitants of India and China agree that there are four principal kings in the world, viz., of the Arabs, of China, of the Greeks, and lastly the Balharah, king of the men who have their ears pierced, this last being the most eminent prince in India. He may be identified as one of the Vallabhy Rajahs of Goozerat. Ceylon is mentioned as the Sarandeeb, and Cape Comorin as Coomaur. The author also mentions the sea of Lar (which washes Malabar and Goozerat), the Lankhabalas or Nicobar Islands, and the Andaman Islands, in the sea of Andaman. (4) *Ibn Khoordadba.*—The next Arab author is Ibn Khoordadba, who died in 912 A.D. He wrote the "Book of Roads and Kingdoms." He also names the Balharah as the greatest king in India, other kingdoms being Jaba, Tafan, Joozr (Goozerat), Ghanah, Rahmee, and Kaumroon. (5) *Al Masoodee.*—Al Masoodee, the author of the "Meadows of Gold," died in 956 A.D. He states that it is the general opinion that India was the portion of the earth in which order and wisdom prevailed in distant ages. After the death of Koresh India was divided into kingdoms among which were Scinde, Canouj, and Cashmeer. India is a vast country; it borders on Zabaj (Java) and extends on the side of the mountains to Khorassan and Scinde. The king of Candahar is called Hahaj. From his dominions comes the river Raeed (Ravee), one of the five that form the Mihraun of Scinde; another river is the Bahautil (Beas). Mooltaun is one of the strongest frontier places of the Mussulmans. (6) *Sheik Aboo Ishak.*—Sheik Aboo Ishak wrote about the middle of the tenth century; his facts are similar to those already stated. (7) *Ibn Howkal.*—Ibn Howkal wrote in 1193 A.D. He only treats of Scinde and the north. (8) *Rasheedooddeen.*—Rasheedooddeen wrote in 1310 A.D. He divides India into nine unequal parts, and describes it as follows. Its shape resembles the back of a crab on the surface of the water. The mountains appear to stand near each other, like the joints of a spine, and rivers flow at their base. Hind is surrounded on the east by Cheen (China) and Macheen, on the west by Scinde and Cabool, and on the south by the sea. On the north lie Cashmeer,

speaking form as much a portion of the Presidency as do the tributary states of Travancore and Cochin on the south. The Amindivy and Laccadive Islands form for administrative purposes a part of Madras Presidency, being attached to

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the country of the Turks, and Mount Meroo, which is extremely high. The heavenly bodies perform their revolutions round it, rising and setting on each side of it. A day and a night of this place is each equal to six of our months. The Hima mountains lie on the north of Canouj, and are covered with snow. The five rivers in the north of India are collectively called Panjnaud. The river Sarsoot (Sarsootee) falls into the sea to the east of Somnauth. The Jumna falls into the Ganga below Canouj. The centre of India is called the Madades or middle land (Madhyadesa). Coming south



the districts of South Canara and Malabar respectively. Off the south-east lies the British colony of Ceylon, separated by a shallow strait across which runs the string of rocks and sandbanks known as "Adam's Bridge."

Maabar (the Coromandel Coast), from Coolam to the country of Silauwar, extends 300 parasangs along the shore. There are two courses or roads from this place; one leads by sea to Cheen, passing by the island of Seelaun. Sarandeep (Ceylon) is at the foot of the Joodee mountain and is called in the language of Hind Samcaudadeep (Sinhaladweepa), because its appearance is like a lion in repose. Rubies and other precious stones are found there. There is another country adjoining Maabar inland, called Deogir, the capital of which is Door Samoondoor (Dwara Samoodra). (9) *Ibn Batuta.*—Ibn Batuta was the greatest traveller of his nation. He visited India about 1330, and mentions Kinbaiat (Cambay), Calicut, Hunawar (Honawar), Tanna, Goozerat, Malabar, and Ceylon. He mentions Coulam (Quilon) as the greatest port in India. (10) *Al Idreesee.*—Al Idreesee wrote about the beginning of the twelfth century and gives the following information. Barooh (Baroche) is a large handsome town, well built of bricks and plaster. It is a port for vessels from China and Scinde. Between Barooh and Nahrwara there are two towns called Hanawal and Doolaka. They stand at the foot of a mountain called Oondaran (probably the Vindhyas). Another town in the vicinity is Asawal (Yessawal being the old name of Ahmedabad). Opposite Barooh lies the island of Mullan. Other towns on the coast are Sindaboor and Bana (Tanna); Fandareena is a town built at the mouth of a river which comes from Manibar (Malabar) where vessels from India and Scinde cast anchor. This author also mentions the cotton fabrics of Coromandel, and the pepper and cardamoms of Malabar. (11) *Aboolfeda of Damascus.*—This celebrated Arabian geographer (1273–1331) mentions the pepper of Malabar, and the cotton of Coromandel. He divides Hindostan into Al Sind, the country of the Indus, and Al Hind, the country of the Ganges. (12) *Conclusion.*—The information of these Arabian writers was not very extensive. Mooltaun, Mansoora and other places of note in the valley of the Indus, were visited by early travellers, and the ports upon the coast, especially those about the Gulf of Cambay, were also known from the reports of mariners. Regarding the interior the information was vague, and evidently drawn from hearsay.

[5] SKETCH ACCOUNT OF THE ANCIENT GEOGRAPHY OF SOUTHERN INDIA ACCORDING TO MEDIÆVAL AUTHORITIES.—*Introduction.*—The following are the chief mediæval European travellers who give any geographical account of Southern India:—Marco Polo (1254–1324), Marino Sanuto (1300–1306), Odorico di Pordenone (1316–1330), John de Marignolli (1347), Nicolo Conti (1419–1444), Athanasius Nikitin (1468–1474), Hieronimo di Santo Stefano (1494–1499), Ludovico di Varthema (1503–1508). (2) *Marco Polo.*—Marco Polo was born in 1254, and died probably in 1324. His father Nicolo, a member of a noble Venetian family, had mercantile establishments at Constantinople and in the Crimea. When he was about 17, he accompanied his father, and his uncle Maffei on their travels. On their arrival at Pekin after a journey of more than three years, he was forthwith taken into favour by the great Khan (Kooblay) and was appointed by him to various high offices. He finally returned to Venice in 1295, and was subsequently taken prisoner by the Genoese at the naval battle of Curzola (1298). During his captivity he dictated the account of his travels to a fellow prisoner named Rusticiano, a native of Pisa. Marco Polo visited India in 1292 and gives an account of the south of India which may thus be epitomized. Sailing west from Seilan (Ceylon) about 60 miles, is the province of Maabar (the Mahomedan name for the Coromandel Coast, from an Arabic word meaning passage or ferry), which is called India the Greater. In this province are five kings, all brothers. At this end the ruling king is named Sondar Bandy Devar, in whose kingdom are found fine pearls, in the gulf between Seilan and the mainland, that is to say Manaar. The fishers go first to Bettelar (either Vedala near Rameswaram or Pattam on the coast of Ceylon). There are fish-charmers called Abraiaman (Brahmins) who keep away the sharks. The body of St. Thomas the Apostle lies at a little town in this province. (Maabar is mentioned in the Chinese annals under the name of Maparh, as one of the foreign kingdoms which sent tribute to the Emperor Kooblay Khan in 1286.) About 1,000 miles to the north is the kingdom of Mutfili (the Telingana or Tiling of the Mahomedan writers; Mutfili is a corruption of Motoopully, a town in the Goontoor district). Here are found diamonds which are obtained by throwing down pieces of meat into the deep valleys. These are seized by eagles, which when they fly up are frightened so that they drop the meat, and then the diamonds that have adhered are picked off (regarding which reference should be made to Vol. II, App. VI). Towards the west from the place where St. Thomas' body lies is the province of Lar (Goozerat, the Λαρίκη of Ptolemy) from which come all the Abraiamans. The king sends merchants to trade in the kingdom of Soli (Chola). There is another class of religious devotees called Choogi (Yogees). Cail (Cauyal in Tinnevelly) is a great city with much traffic, and belongs to king Ashar. At Comari (Comorin, Ptolemy's κομάρια ἄκρον) you can see the north star. About 300 miles to the west is the kingdom of Eli (Mount Delly, properly Monte d'Ely, a hilly promontory about 16 miles north of Cannanore, the first Indian land seen by Vasco da Gama in 1498; Aboolfeda calls it Ras Haili). It is also mentioned by Rasheedooddeen and Ibn Batuta as Hili). Melibar (Malabar) is a great kingdom to the west. Another kingdom near it is called Gozurat (Goozerat). Both of these are infested with pirates. Further north is Tana (this name still exists as a suburb of Bombay, but by the name Marco Polo meant the Concan, which is called by Rasheedooddeen Konkan-Tana, and by Ibn Batuta Kookin-Tana). Cambaet lies further west (Cambay). Further north is Semenat (Somnauth, the site of the celebrated temple plundered by Mahmood of Ghuznee). (3) *Marino Sanuto.*—Marino Sanuto, a Venetian nobleman, travelled in the east about 1300–1306. He gives details of the commerce between Venice and India, and mentions Malabar and Cambay as the chief commercial districts of India. (4) *Odorico di Pordenone.*—Odorico di Pordenone was a Minorite friar who travelled in India between 1316 and 1330. He landed at Tanna near Bombay, and, after visiting Surat, went by sea to Polumbum or Columbum (Quilon). In Minibar (Malabar) he mentions the towns of Flandrina and Cyngilin (Cranganore). He next went to Mobar (the Coromandel Coast), whence he sailed for Sillan (Ceylon). (5) *John de Marignolli.*—John de Marignolli, a Minorite Friar visited Columbum (Quilon) in 1347. He mentions Malabar, the Coromandel Coast, and Ceylon. (6) *Nicolo Conti.*—Nicolo Conti, a noble Venetian, travelled in India and the east for 25 years, between 1419 and 1444. He first arrived at Cambay, whence going southward he visited two cities on the sea, Pacamuria and Helly. He next travelled inland and arrived successively at Bizenegalia (Vijianugger or Humpy), Pelagonda, Peudifetania (പുതുപ്പട്ടണം on the Malabar Coast), Odeschiria, Cenderghiria (Chundragherry), Malepur (Mylapore or St. Thomé), and Cahila (Cauyal). He then crossed over to the island of Zeilam (Ceylon), and returning to India, sailed to the mouth of the Ganges and up the river for 15 days. After visiting China and the Indian Archipelago, he returned to Coloen (Quilon) in Melibaria (Malabar), and went on to Cocyn (Cochin), Colanguria, Paliuria, Meliancota, Calicut, and Cambay. (7) *Athanasius Nikitin.*—Athanasius Nikitin, a Russian, travelled in the east between 1468 and 1474. In India he mentions Cambayat (Cambay), Dabyl (Daubhol in the Concan), Mysore, Calecot (Calicut), Beedar, Bijanagar (Vijianugger), and Goolburgha. He also visited Ceylon. (8) *Hieronimo di Santo Stefano.*—Hieronimo di Santo Stefano was a Genoese merchant who visited India about 1494–99. He touched first at Calicut, and then went on to Ceylon, whence he sailed to a port on the Coromandel Coast. (9) *Ludovico di Varthema.*—Ludovico di Varthema was a Bolognese who travelled in the east from 1503 to 1508. He first arrived at Dinobandierrumi (*i.e.*, Diu Bander-er-Roomi, Dew, the port of the Turks), and then went on to Goa, whence he sailed across the Persian Gulf. From Ormuz he returned to Combeia (Cambay), and subsequently visited Cevul (Chowla in the Bombay Presidency), Dabuli (Daubhol), Goga (Goa), Decan (Beejapore), Bathacala (Carwar), Centacola (Ancola), Onor (Honore), Mangalore, and Cannanore. He then journeyed up-country towards the kingdom of Narsinga and visited the city of Bisinegar (Vijianugger). Returning to Cannanore, he went by way of Tormapatani (Dharmapatam), Pandarani and Capogatto to Calicut, where, he says, the dignity of India is centered. At Calicut he found merchants from Banghella (Bengal), Ciormandel (Coromandel), Zailani (Ceylon), Colon (Quilon), Caicolon (Quilon), Bathacala (Bhatcal), Dabuli (Daubhol), Chievuli (Chowla), Combeia (Cambay), Guzerati (Goozerat), and from many other countries. He says that Cape Cumerin (Comorin) is distant from Calicut eight days' journey by sea to the south. On leaving Calicut, Varthema went to Cacolon (Cauyancollam), Colon (Quilon), Chayl (Cauyal), and Cioromandel (Coromandel), near which place, he was informed St. Thomas' body was buried. He then crossed over to Zailon (Ceylon), but returning to the Coromandel Coast, visited Paleachet (Poolicat), a place of immense traffic, especially in jewels. After crossing over to Tarnassari (Tennasserim), Varthema went to the city of Banghella (probably Bengal). He then visited the Indian Archipelago and returned again

2. Mountains, Rivers, and Lakes.—From a physical point of view the Presidency may be roughly divided into three portions, the long and broad eastern coast, the shorter and narrower western coast, and the high tableland in the interior. These divisions are determined by the two great mountain ranges of the Eastern and Western Ghauts, which give the key to the configuration of all Southern India. The two chains extend along the opposite coasts, parallel to each other, or rather diverging, and leaving between them and the sea only a plain of forty or fifty miles in breadth. They rise in few places above 3,000 or 4,000 feet high; but are very rugged and steep, and the entrance into the interior is only by very narrow and difficult passes. The name of ghaut, which, through the Teutonic languages, has come to the English language in the word gate, being applied to these passes, has been gradually extended to the mountains themselves. The Eastern Ghauts, which lie entirely within this Presidency, form a continuation of the hill system of Chota Nagpore. They run in a south-westerly direction almost through the entire length of Madras, until they lose themselves in the Neilgherries, and there join with the western range. Their average height is 1,500 feet, and for the most part they leave a broad expanse of low land between their base and the sea. Their line is pierced by the Godavery, Kistna, and Cauvery rivers, as well as by minor streams; so that they do not perform the part of a watershed. The Western Ghauts on the other hand, which stretch southwards continuously along the shore of the Indian Ocean from the north of Bombay, satisfy all the characteristics of a mountain range. Rising steeply at a distance of 10 to 50 miles in the Madras districts from the coast, they catch the greater part of the rainfall of the monsoon, and in the south no stream breaks through them. Some of their peaks attain an elevation of from 5,000 to 8,000 feet. Though steep and stony, the hills are not broken, but covered generally with a stratum of earth, sustaining stately

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to the Coromandel Coast, landing at Negapatam. Varthema then went round by Quilon and Calicut to Cannanore, where he entered the Portuguese service, finally returning home in 1508.

[6] Approximate Summary of the Geography of Southern India during the First Ten or Fifteen Centuries of the Christian Era.—*Introduction.*—In addition to the information afforded by the Sanscrit writers and other foreigners, as detailed above, a large fund of geographical information is derivable from archæological research; that is to say from inscriptions found in different localities, from the records of the modern priesthood called stalapooranas, and from the traditions of the people themselves. Items of archæological disquisition must be deferred till the third volume; but putting together the different authorities just named, the following may be taken as an account of the South Indian geography during the first ten or fifteen centuries of the present Christian era. The area now occupied by the Madras Presidency contained the whole or part of seven principal geographical divisions; the Pandya country, the Chola country, the Chera country, Kerala, Carnata, Calinga, and Andhra. The Cholas, Cheras, and Pandyas had a common origin, and were called by their contemporaries Dravidas. Their language was known as Dravida. The others were in the closest degree allied, and in modern times the term Dravida has been extended to them also. Subordinate geographical divisions which may be mentioned were Malacoota, Maravadesha, Congoodesha, Tondeimandalam, and Vengidesha. (2) *Pandya.*—Pandya as known from about the fifth century B.C. to the eighteenth century A.D. was a small country, with its capital first at Korkay on the Tambrapurny and afterwards at Madura. It comprised the present districts of Madura and Tinnevelly. (3) *Chola.*—According to the earliest known writers the country of the Cholas was in the east, while the Pandyans held the tracts to the south, and the Cheras that to the west. The north-western limits of the Chola kingdom were probably a line passing through Poolicat, Bangalore, and so along the ghauts to Coimbatore and Calicut. Conjeeveram was perhaps the capital in the fifth century B.C., Warriore near Trichinopoly in the second century A.D., Combaconam in the seventh, and Tanjore in the tenth. The name of Chola still exists in Coromandel, which is a corruption of Cholamundalam, or the realm of the Cholas. (4) *Chera.*—Chera consisted of Coimbatore, Salem, and parts of Mysore, Tinnevelly and Travancore. Originally Chera and Kerala were probably the same country which subsequently was divided into two different kingdoms. Caroor is mentioned by Ptolemy as the capital. (5) *Kerala.*—The kingdom of Kerala included the country where Malayalam is now spoken, that is to say the modern districts of Malabar and Canara. It may have been originally part of Chera. (6) *Carnata.*—The boundaries of the Carnata country, which is comparatively a modern designation, are better known. They commenced near the town of Beedar in the latitude of 18° 45′ north, about 60 miles north-west from Hyderabad. Following the course of the Tamul language to the south-east, the country was limited by a waving line which nearly touched Adony, went to the west of Gooty, skirted the town of Anantapore, and, passing through Nundidroog, touched the range of the Eastern Ghauts. Thence pursuing a southern course to the mountainous pass of Guzzelhutty, it continued to follow the abrupt turn caused by the chasm of the western hills between the towns of Coimbatore, Pollachy, Palghaut; and turning to the north-west, skirted the edges of the Western Ghauts nearly as far north as the sources of the Kistna; whence following first an eastern and afterwards a north-eastern course, it terminated in rather an acute angle near Beedar, already described as its northern limit. The name still exists in Carnatic, the name applied by Europeans to the country from Cape Comorin to the Northern Circars lying east of the ghauts and extending to the sea on the Coromandel Coast. (7) *Calinga.*—The country of Calinga included the eastern Madras coast, from Poolicat to Chicacole and from the Eastern Ghauts to the Bay of Bengal. Orissa was at one time included in it. The language of the country was Teloogoo. Rajahmundry, Coringa, Sinhapoora, Vaigy, Calingapatam, and Chicacole were important towns of Calinga at different times. Traces of the name are found in Calinga ghaut, Calingapatam, and Coringa. (8) *Andhra.*—This country lay inland, to the west of Calinga; forming what is now the Eastern Deccan. The capital of Andhra was Warangal. (9) *Malacoota.*—This is Hwen Thsang's name for the extreme south of the peninsula, and is connected with the name for Malabar or the Western Ghauts. (10) *Maravadesha.*—This was the present Ramnaud and Shivagunga Zemindarries, and appears to be an ancient designation. (11) *Congoodesha.*—The present Coimbatore district, upper part of Salem district, and south Mysore became at one time separated from the Chera country under this name. (12) *Tondeimandalam.*—This is the best known of all the old divisions, and dates from perhaps the eleventh century of the Christian era. It formed that part of the Chola country which lay round the present Madras; north, west, and south. It had two divisions; upper Tonday above ghauts, and lower Tonday or the coast region. (13) *Vengidesha.*—This was the country between the Godavery and Kistna towards the coast, forming part of Calinga in the most extended signification of the latter country. (14) *Conclusion.*—The above is a very bare summary, and for further information the reader should proceed to the article on History; where also will be found a map illustrating the Dravidian dynasties, probably not only of this but of a very much earlier period.

forests, particularly of bamboo, which is found nowhere else in equal perfection. The interior, between these two chains, consists chiefly of successive tablelands supported by the opposite ghauts and by chains crossing from one to the other, diversified also by single precipitous eminences, which are formed into almost impregnable hill forts. One continuous chain, the Vindhya Mountains, runs across the broad base of the peninsula, and forms a rugged boundary between it and the great plain of Hindostan proper. On the west this is connected with a range of bold and lofty hills, which compose the territory of Rajasthaun. The most southerly central tableland, with an elevation of from 1,000 to 3,000 feet, includes the whole of Mysore and extends over several of the Madras districts. There are again in the south various minor hill systems. The Neilgherries, which form the junction of the two main ranges, are generally regarded as a distinct block of hills; they culminate in Dodabetta, till lately regarded as the highest peak in Southern India. At this height, the traveller from the plains enjoys cool and refreshing breezes, with a rich and romantic scenery of hills, lakes and waterfalls. The region is inhabited by the Todahs, a race of shepherds, speaking a peculiar language, and almost entire strangers to the mythology and manners of the inhabitants of the plains. There are also outlying spurs and masses of hills, of which the Shevaroys in Salem, the Anamullays in Coimbatore, and the Pulney Hills in Madura are the most important. At the Palghaut gap the Western Ghauts fall to a height of 1,000 feet above sea-level, by a break 25 miles wide through which runs the principal railroad of the south of India. They then resume their course at full level down to Cape Comorin, and immediately widen out into the highland tract that lies between Madura on the one side, and Malabar, Cochin, and Travancore on the other; this highland being known as the Anamullays in the Coimbatore district and as the Pulneys in Madura. The hill tract here mentioned, higher than the Neilgherries in parts, and much more extensive, becomes narrower again opposite the Cumbum valley in Madura, and behind Tinnevelly becomes only a mountain range between the two coasts with a restricted area. The tract is very extensive, and is likely to open a field for European enterprise as the Neilgherry range becomes fully occupied. The Anamoody mountain in the Anamullay range is now known to be the highest in Southern India, its summit being 8,850 feet above the level of the sea.

3. The Ganges and the Indus in the north of India finally absorb all the waters which descend from the southern face of the Himalaya; and these flowing either eastward or westward over the vast plain of Central India, leave between them a large expanse of arid desert bordering on the Indus. All the other waters of India belong to what is called peninsular India. Beginning from the north, the first two that occur flow eastward into the Gulf of Cambay; the Nerbudda, parallel to the Vindhya chain, and fed by its streams; and the Tapty, which passes by Surat. There the chain of the Western Ghauts begins, whence all the other large rivers flow eastward into the Bay of Bengal. The principal of these are the Godavery, the Kistna, and the Cauvery; all sacred in the eyes of the Hindoo, and truly valuable by their services to irrigation and commerce. These rivers have the same uniform features. They rise in the Western Ghauts, and run across the peninsula in a south-easterly direction. They drain rather than water the upper country through which they flow, and are comparatively valueless there either for navigation or irrigation. But they spread over alluvial deltas before they reach the sea, and at that stage become capable of being restrained and utilized by the agricultural engineer. The estimated basin area of the Godavery is 112,200 square miles, and its length is 898 miles. The estimated basin area of the Kistna is 94,500 square miles, and its length is 800 miles. The estimated basin area of the Cauvery is 327,700 square miles, and its length is 472 miles. Each of these rivers has a large tributary system of its own. Other rivers on the east coast, of similar character but smaller dimensions, are the North and South Pennair or Pinaukiny (the southern being called Ponniaur), the Palaur, the Vellaur, the Veigay, and the Tambrapurny. The area of country drained by rivers running westward is only the narrow strip of territory between the Western Ghauts and the sea. As a rule the country slopes gradually from the eastern base of the western mountain chain down to the Coromandel Coast, while the fall is sudden and precipitous on the western side of the mountains.

4. It is somewhat remarkable that in so large a region as India, with so many mountains and waters, there should scarcely be a lake. To find this feature on a great scale it is necessary to penetrate the northern barrier of India into Central Asia. So called lakes are the Chilka on the Coromandel Coast at the confines of this Presidency, and the Poolicat Lake on the same coast within the Presidency. But these are really mere salt marshes like the Mareotis or Menzaleh. Poolicat Lake, 33 miles in length from north to south, forms a more or less important backwater for inland communication between Madras city and the northern districts. This lake is supposed to have been caused by the sea breaking in through the low sandy beach. On the western coast, the perpetual antagonism between the mountain torrents and the ocean has produced a remarkable series of backwaters or lagoons, which skirt the entire seaboard of Canara, Malabar, and Travancore. The largest is the backwater of Cochin, which extends from north to south for a distance of 120 miles. These backwaters also are used for inland navigation. A projecting spur of the ghauts for a long time interrupted communication, but this has now been tunnelled, and continuous water communication is provided by this means between Cochin and the capital of Travancore, to be prolonged southwards to Cape Comorin by an artificial canal.

5. Climate and Productions.—The peculiar physical geography of the peninsula with a large mountain chain running from north to south along its western boundary, is of importance in regard to climate and the productions of the various portions of the country. The western hills have the effect of arresting the lower strata of rain clouds brought up from the Indian Ocean by the periodical winds of the south-west monsoon, and of causing excessive rain precipitation on the narrow strip of coast-line on the western side of the peninsula. Where the mountain range is of great height, as between Malabar and Coimbatore, the rain clouds are almost entirely diverted from the districts immediately below the mountains on the eastern side; and while the annual rainfall on the western side may be one hundred and fifty inches, not more than twenty inches are usually registered on the eastern side, immediately within the influence of the mountain ranges. Where the mountain chain is of lower elevation, the rain clouds pass over the hills, and rain is precipitated in uncertain and varying amount over the peninsula to the east of the ghauts; but, except in the northern districts, where the rainy season approximates to that of Bengal, the heaviest rainfall of the southern portion of the eastern division of the peninsula occurs during the period of the north-east monsoon. During the continuance of this monsoon, the western ranges of mountains have a similar effect in arresting the rain clouds, so that at the season of the year when the Carnatic is visited by heavy rain, the western coast districts enjoy clear weather. The climate thus varies considerably in the different parts of the Presidency. The Neilgherry Hills enjoy the climate of the temperate zone, with a moderate rainfall, and a thermometer rarely exceeding 80° F., and sometimes falling to freezing-point. In 1876, the mean temperature in the shade at the sanitarium of Wellington was 61·2° F. On the Malabar coast, the south-west monsoon brings an excessive rainfall, reaching 150 inches in the year at certain places. The rain clouds hanging on the slope of the Western Ghauts sometimes obscure the sun for months at a time. Along the eastern coast and on the central tablelands the rainfall is comparatively low, but the heat of the summer months is excessive. At Masulipatam the thermometer frequently rises to above 110° F. in the shade, and to 170° in the sun. Observations extending over a period of sixty-three years give an average of 48·9 inches of rain in the year at Madras city; but this is considerably above the mean of the east coast generally. At Bellary the average annual rainfall does not exceed 22 inches, of which 16 inches are brought by the south-west monsoon across the ghauts. The whole coast of the Bay of Bengal is liable to disastrous cyclones, which not only wreck the shipping in the roads, but have repeatedly overwhelmed the low-lying ports.

6. To the physical barrier of the Western Ghauts must be attributed not only the vast differences of climate, but also those of the nature of the productions, in the eastern and western divisions of the peninsula. In the former division the uncertainty and capricious character of the rainfall has taught the cultivators of the soil the necessity of making provision for the storage of water for irrigation

purposes, and innumerable tanks or reservoirs scattered throughout the country are the result. On the western side of the mountains however the necessity for such works has never arisen. There the periodical rains fall with great regularity as to time and quantity, and the earth produces so abundantly that, although in certain exceptional years there may be partial failures of crops, absolute agricultural distress as a result of bad seasons is quite unknown. Only three of the twenty-one districts of which the Madras Presidency is composed lie within the influence of the never-failing rains of the south-west monsoon. In the remaining eighteen districts nature demands the assistance of art in the collection, storage, and distribution of the rain-supply. In some of these eighteen districts however, as in the northern coast area, the periodical rains fall more regularly than in others, giving them thus an advantage. In several of these also the rivers running eastward, swelled by the south-west monsoon rains, form an additional source of irrigation. The chief staples of the Presidency are rice; cholam (a kind of maize); cumboo (a kind of millet); raggy and varagoo amongst food-grains; gingelly amongst oil-seeds; and chillies, tobacco, sugar-cane, plantains, and betel-leaf amongst garden crops. Cotton, which may be regarded as a special crop, has a cultivation almost equalling that of raggy. The trees most grown for their fruits are cocoa-nut, areca-nut, jack, tamarind, and mango. Rice, as might be expected, is produced in the largest quantities in the alluvial and highly-irrigated districts of Tanjore, Godavery, and Kistna on the east coast, and in Malabar and Canara on the west coast, where the rainfall is abundant. Cholam is principally cultivated in the tableland districts of Bellary and Kurnool, while cumboo and raggy are most extensively grown in the other inland, but less elevated, districts, such as Salem and Coimbatore. Cocoanut palms flourish most luxuriantly on the banks of the estuaries and back-waters or salt-water lagoons of the western districts of Malabar and Canara, and areca-nut palms in the valleys intersecting the lower slopes of the Western Ghauts.

7. General Survey, the West Coast.—When the Concany territories in Bombay are left behind to the north, all that ever constituted part of the Moghul empire, or at least was regularly apportioned among its provinces, has been quitted. The south of India may be said to reach from this point to Cape Comorin, and to begin with the maritime tract of Malabar. The name of Malabar properly belongs to a kingdom, of which the capital, Calicut, was found by the first Portuguese navigators to be the seat of a considerable dominion, under a sovereign called the Zamorin. Under a misconception of the extent of the country the name Malabar was extended to neighbouring countries, and has even been applied loosely to all the western coast of the peninsula as far as the Gulf of Cambay. Considered as the coast reaching from the Concan to Cape Comorin, it forms a region 500 miles in length, 30 or 40 in breadth, interposed between the Indian Ocean and the almost continuous chain of the Western Ghauts. This position supplies it with copious moisture. Its surface, rugged, rocky, and irregular, may be rendered highly productive with careful cultivation, which is generally bestowed. It yields very large crops of rice, forming an article of export to Bombay and the northern coasts. But the ancient staple of its European commerce is pepper, produced in greater abundance and perfection than in any other part of the globe. It produces also very copiously the noted Indian luxury, the betel-leaf and areca-nut; likewise ginger, cardamoms, and several other spices. The new product of coffee forms an important export to European countries. The upper districts abound with fine timber, particularly the teak, so pre-eminently valuable for ship-building; also sandal, sapan, and other dyeing and ornamental woods. The region does not contain any fine or flourishing manufactures, unless the modern industry in machine-made earthen tiles be reckoned as such; but with its grain, timber and spices purchases the fine cottons of Goozerat. Social life throughout Malabar presents a very remarkable aspect. The original structure of Hindoo society has not been altered by foreign conquests, but it exhibits within itself some forms decidedly in contrast with those which are found elsewhere. The distinctions of caste are carried to an unusual pitch. Before the enforcement of English law, if a cultivator (Teeyar) or fisherman (Moocwa) touched one of the Nayars or military class, the Nayar was considered justified in killing the person so touching him on the spot. The Pariah

class were in Malabar till lately little else than slaves. A class called Niyaudies are excluded from all human intercourse, and forced to wander in unfrequented places, without means of support, except the alms of passengers. The Nayars themselves are a remarkable body. In the Hindoo system they are classed as Shoodras, though they rank immediately under the Brahmins, the intermediate classes being here wanting. Indeed they are manifestly equal in dignity with the Cshatriyas of North-western India. Their most peculiar characteristic consists in the arrangements with regard to females. These are married at ten years of age, and have an aliment transmitted to them by their husband, whom they must not however see or hold intercourse with; a single instance of such connection would be considered scandalous. They reside with their mother, and after her death with their brother; and they are allowed, and regard it an honour, to attract as many lovers as possible, provided they be of equal or superior rank. It is thus considered a ridiculous question to ask a Nayar who is his father. The only real parentage rests with the brother of the wife, whose children are considered as belonging to him, and to whom all his property and titles are transmitted; for the sister's children must be in one degree consanguineous, while the wife's children may not be in any. Another striking peculiarity on the Malabar coast consists in the early colonies of Christians and Jews, which still form a considerable part of its population. So numerous are the former, as to give Malabar in many quarters the appearance of a Christian country; they are computed on the whole at from 100,000 to 150,000. They derive from a very well-known tradition the title of Christians of St. Thomas; their origin does not in reality appear to be much later than the apostolic age. Their original form of worship was not in accordance with the tenets of the Catholic church. The Portuguese, who at an early period became masters of this coast, considering such worship as heresy, compelled them to conform. The Malabar Christians could not however be induced to hear the service read in Latin; the Portuguese therefore conceded this point, and allowed the use of the Syriac. A species of Syro-Roman church was thus formed. The Jews of Malabar, who amount to about 30,000, are divided into white and black, forming quite distinct classes; the white considering the other as comparatively low and impure. In A.D. 490 they obtained the gift of the city of Cranganore; but, having incurred the hostility of a neighbouring rajah, this settlement was broken up and dispersed. The Black Jews have been supposed by some to be Hindoo converts; but it is probable that they were an earlier race of Jews from Palestine. Both tribes possess Hebrew manuscripts of the Old Testament, which appear to be preserved in a state of tolerable purity.

8. In surveying this coast in somewhat more detail, the first tract met is Canara, which extends along the sea about 200 miles. The northern part, now in the Bombay territory, is very hilly, and produces chiefly teakwood; but the southern, portion of which is called by the natives Tooloova, is well cultivated and exports large quantities of rice. Hindoos of the peculiar sect called the Jains abound in the country. There are also a considerable number of Christians; but the sea-coast is mostly occupied by a class of Mahomedans called Moplahs, apparently emigrants from Arabia. Through their means Hyder and Tippoo were complete masters of Canara, and the latter carried on a violent persecution against the professors of all other religions. After the fall of Tippoo however in 1799, Canara was annexed to the British dominions and toleration was restored. South Canara alone now belongs to this Presidency. The principal city of Canara is Mangalore, long a flourishing emporium. It suffered in the war between the Mysore sovereigns and the British Government. Being taken by the British in 1733, it was defended with extraordinary valour against the whole force of Tippoo. In the following year it was surrendered by treaty to that ruler, who then dismantled the fortifications. Since coming under British dominion Mangalore has flourished, and carries on a very large export of rice. It is situated on a backwater forming a common estuary to two rivers, one of which is to its north and the other is to its south. The port will not admit vessels drawing more than ten feet water; but the anchorage at the mouth of the river is good.

9. Proceeding southwards, the next district is that of Malabar proper, which occupies about 200 miles of coast, and contains upwards of 2,300,000 inhabitants.

The soil immediately along the shore is poor and sandy; but in the interior it consists of hills, the sides of which are formed into terraces, with fertile valleys interposed. Pepper, abundantly raised in the hill-forests of this country, forms the staple of a very extensive foreign trade. Calicut, which first gave to De Gama an idea of the splendour of Indian cities, was the residence of the Zamorin, whose empire then extended wide along Malabar. Its power was materially broken by unsuccessful contest with the Portuguese; and towards the close of the last century was finally destroyed by the invasions of Hyder and Tippoo. In the struggle which terminated in the downfall of the latter, Britain derived some aid from the native chiefs, who in return were invested with the internal jurisdiction of the country subject to the payment of a regular tribute. Between powers placed in so delicate a relation dissensions soon arose; the conflict terminated in favour of the British, who assumed the uncontrolled dominion of the country, its territory being annexed to this Presidency. The Zamorin is now a stipendiary of the Madras Government. Calicut, the once important capital of Malabar, was entirely destroyed by Tippoo; but, as soon as British ascendency permitted, the inhabitants animated by that local attachment which is strong in India hastened to return. It is now a large place with an improving trade. The most remarkable modern city however has been Cannanore, formerly the seat of a female ruler called the Beeby, and from its almost impregnable position regarded as the main hold of the Moplahs or Mahomedans of Malabar. The Beeby was till lately allowed to administer Cannanore and the country in its immediate vicinity. She carries on also considerable mercantile transactions with Bengal and Arabia, and includes in her sovereignty part of the Laccadives, an archipelago of low shoaly islets, facing the coast of Malabar at the distance of from 75 to 150 miles. They however produce nothing but coir, yarn and plantains, and are inhabited by poor Moplah fishermen. Tellicherry, long the principal English settlement and seat of trade, contains many rich merchants. At the capture in 1793 of Mahé, then the principal French settlement, the preference was given to that place, which has the advantage of a particularly fine situation; but on its subsequent rendition it decayed.

10. South of Malabar proper is the small province of Cochin, which presents the same general aspect as the rest of the coast, and particularly abounds in teak timber. The Jewish and Christian colonies are very numerous in this territory. Cochin the capital was the first point at which the Portuguese were allowed to erect a fort. In 1663 it was taken by the Dutch, and was rendered by them one of the most flourishing cities of India. The rajah has maintained his independence better than most Hindoo princes. He was merely tributary to Tippoo, and has been allowed by the English to carry on the internal affairs of his state, though under payment of tribute. Cochin still enjoys a considerable trade. Ten miles to the north is Cranganore, which the Portuguese have made the seat of a Bishop's see.

11. The extended line of coast from Cochin to Cape Comorin is occupied by the dominions of the Maharajah of Travancore. They possess all the advantages peculiar to the Malabar Coast. The inland districts, in particular, are remarkable for fertility and beauty. They exhibit a varied scene, consisting of hills clothed with lofty forests, and of winding streams with valleys clad in perpetual verdure. The woods are perfumed with numberless aromatic plants. Besides the staple article of pepper, Travancore yields ginger, turmeric, and inferior species of nutmeg and cinnamon. The Travancore Maharajah, like the Cochin Rajah, conducts the internal affairs of his dominions, subject to the advice of the British representative under a treaty of 1805. Travancore, the ancient capital, was situated somewhat up the country in a soil of white sand; but it is much decayed since the Maharajah removed to Putmanaubhapooram and subsequently to a new palace built on the European model at Trivandrum. Alleppey, Quilon, and Colachel afford convenient havens for trade, though the strong currents which run along the coast render navigation difficult.

12. At the extreme point of the territory of Travancore is situated Cape Comorin, the southern boundary of India. A few miles from this stands the southernmost scarp of the Western Ghauts, a bold and commanding feature, which

presents to the ocean a lofty hill covered with the most brilliant verdure. The rocks scattered along the shore of the cape render it necessary for the navigator to keep at a distance.

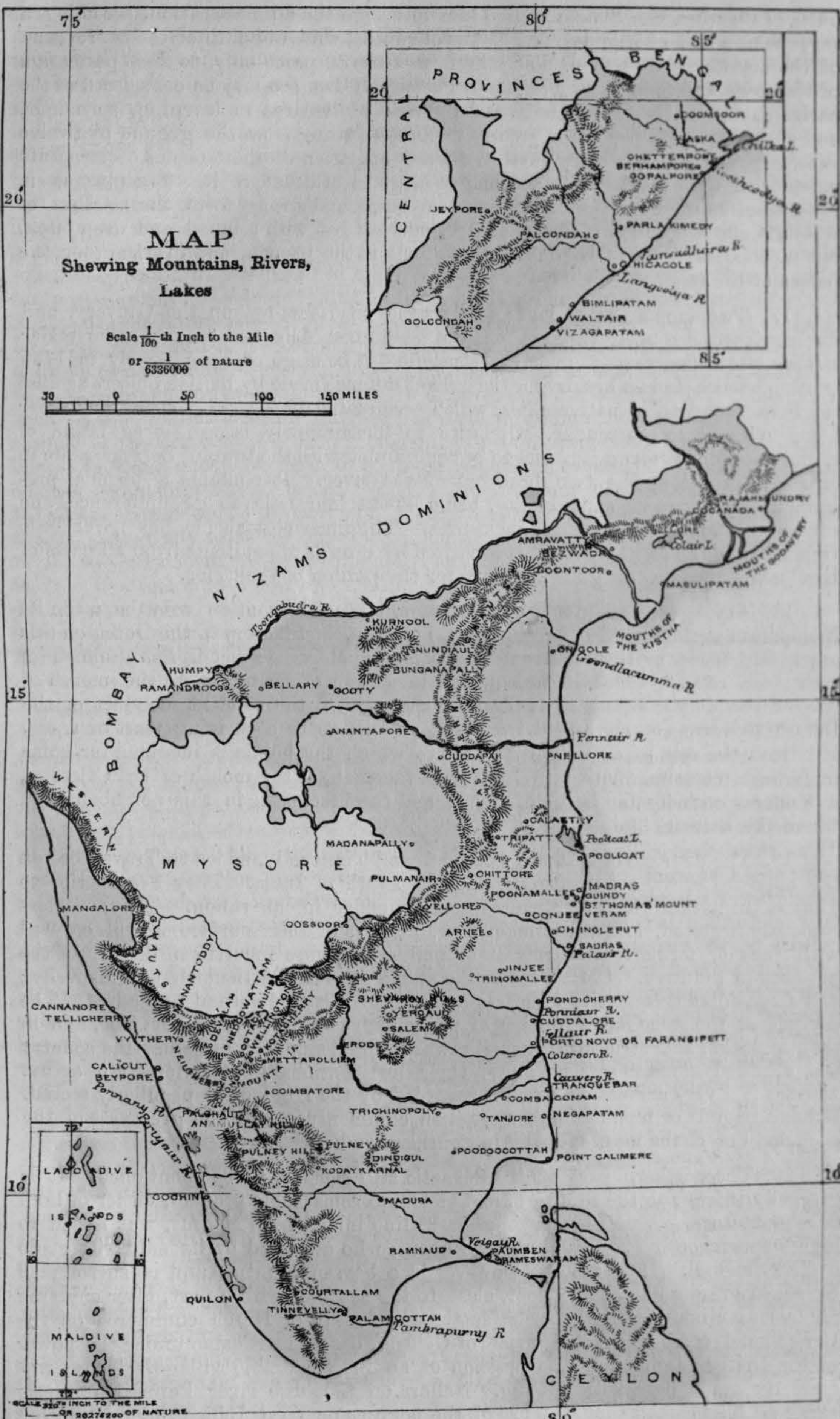
13. THE SAME, THE CARNATIC.—After turning Cape Comorin the extensive territory is reached to which Europeans have given the name of Carnatic. It stretches about 500 miles along the coast, stopping somewhat short of the great natural boundary of the Kistna. It is divided into two parts by the chain of the Eastern Ghauts, running like the Western parallel to the coast. One of these divisions is called the Carnatic above and the other the Carnatic below the ghauts; but the former is better known under the title of Mysore, and the territory on the coast will be here considered as the proper Carnatic. It is called also the coast of Coromandel; and, though in its general structure similar to Malabar, presents some marked differences. The mountains are distant from the sea fifty, seventy, or a hundred miles; and, instead of being clothed with vast and majestic woods, are in most places naked and rocky. The region is watered by several great rivers, rising in the Western Ghauts, and running across the whole peninsula; among which the Cauvery stands pre-eminent. Upon the whole however, instead of numberless torrents dashing down the sides of the hills, and requiring only to be confined and guided; this tract contains large arid plains, to which the industrious husbandman can with difficulty by canals and tanks convey the necessary moisture. The ghauts also from their great altitude intercept the heavy rains which the monsoon brings on the western coast; and there are only occasional showers, from May to June, to fertilise the ground and cool the intensity of the heat. Hence the Carnatic, in seasons of drought, is subject to severer famines than any other part of India. Yet, though there are many barren tracts, the country on the whole is highly cultivated and very productive. The population of the Carnatic is essentially Hindoo. The tide of Mahomedan conquest did not reach it before the fourteenth century; nor was the subjection nearly complete until the reign of Aurungzeeb. A race of Moghul viceroys was then established at Arcot, who on the fall of the empire set up an independent power. Pressed however by the overwhelming force of the Rajahs of Mysore, they were forced to ask for British aid. The Company readily interposed, and after a long and severe struggle subverted the throne of Hyder and Tippoo. The nawab however was unable to maintain his position. On the death of the reigning nawab in 1801, his successor was made to sign a treaty by which the sovereignty of all his territories was transferred to the Company: and there was reserved to himself only from two to three lakhs of pagodas, and a portion of household lands. The country was then divided into eight districts or collectorships, administered by British officers. Arcot and its immediate vicinity is chiefly peopled by Mussalmans; and on the southern part of the coast there are emigrants from Arabia, though not in so great numbers as on the Malabar coast. The rest of the population is Hindoo, and the customs and religion of this native race have been preserved here in unusual purity. The pagodas are extremely numerous, and rival in splendour those of the sacred cities of Benares and Allahabad. The Brahmins, not generally oppressed as elsewhere under Mahomedan ascendency, had intrusted to them by that government most of the civil employments in the state and revenue. Another class, almost peculiar to this part of the country, was formerly that of the poligars. Originally district officers of the old Naick and British Governments, they took advantage of the periods of weakness of the latter, and erected castles from which like the baronial chiefs of Europe in the feudal ages they plundered and oppressed the surrounding country. The English Government were often obliged to purchase their orderly behaviour by giving them an independent power and jurisdiction. There is no class whose subjection proved so expensive to Great Britain. The Carnatic is much more of a manufacturing country than Malabar; yet it does not produce those fine fabrics which distinguish the Northern Circars. Piece-goods, blue cloths, chintzes, &c., all of a coarser kind, are its principal products.

14. A detailed survey of the Carnatic may begin with Madras, now its capital, and that of the British possessions on the eastern coast. The choice of a capital, as in many other countries, has not been so happy as that made by the French; Pondicherry being in every way a naturally finer and more convenient station.

Madras has had till very recently no harbour; but a mere road, through which runs a strong current, and which is often exposed to dangerous winds. On the beach breaks so strong and continual a surf, that only a peculiar species of large light boats, the thin planks of which are sewed together with the tough grass of the country, can by the dexterous management of the natives be rowed across it. For minor communications with the shipping and for deep sea-fishing the natives of the coast employ what is called a catamaran, consisting merely of two planks fastened together, with which they encounter the roughest seas with wonderful address, and when swept off by the waves regain it by swimming. Fort St. George, planned by Mr. Robins, a celebrated engineer, and placed at a small distance from the sea, was once regarded as a strong and handsome fortress, though not on so great a scale as Fort William at Calcutta; but more advantageously situated however, and defensible by a smaller number of men. European Madras is for the most part an assemblage of country houses situated in the midst of gardens, and scattered over an extent of several miles. The houses are light and elegant, having columns covered with the fine composition of shell limestone called choonam. The hand of art has covered with verdure a somewhat arid soil. The Black Town is extensive, and its minarets and pagodas, mixed with trees and gardens, are striking from a distance; but the interior is poor. In the vicinity of Madras is the district of Chingleput, originally obtained as a jagheer from the Moghul, and still kept up as a distinct collectorship. Though the soil is generally dry, it is made by industry to yield tolerable crops of rice. The town of Chingleput is somewhat inland, and not of much importance though the seat of a sub-collectorate. About thirty-five miles to the south of Madras is Mahabalipore, or the city of the Great Bali, called also the Seven Pagodas. It consists of a range of sculptured edifices representing the exploits of Bali, Krishna, and other chiefs celebrated in the Mahabharat. It is sacred to Vishnoo, a colossal image of whom is found in the principal temple. The monuments, though not on the same gigantic scale as in some other parts of India, are well executed. In the interior of the country is the hill-temple of Tripatty, one of the most crowded scenes of Hindoo pilgrimage; the ceremonies of which however Europeans have never been allowed to view.

15. Proceeding southwards Pondicherry is reached, the seat of French empire in India. This empire, founded in 1749 by M. Dupleix, presented for some time a brilliant aspect, and seconded by native alliances threatened to subvert the foundations of the British power in the East. Towards the close of the war of 1756 Pondicherry fell into the hands of the British; and though restored by subsequent treaties, never on the renewal of war made any effectual resistance. Pondicherry was raised by the French from a village to be the handsomest European city in India. It contains many fine houses in the European style; and the high culture of the vicinity, the numerous canals crossed by neatly constructed bridges, the roads planted with trees and partly adorned by statues, give to the surrounding district the appearance of a great garden. The inhabitants have suffered much by repeated hostilities, and being unfavourably situated for trade, have been unable entirely to retrieve their affairs. In trade Pondicherry was at one time surpassed by Cuddalore, a well-built town at the mouth of a considerable river. In war Cuddalore has followed the fortunes of Pondicherry, though its capture in 1783 was not effected without very great loss on the part of the British.

16. The Kingdom of Tanjore was formerly an important territory, consisting of the delta of the Cauvery. The Hindoos attach to its stream a peculiarly sacred character. At Trichinopoly, about 100 miles above the sea, it separates into two great branches, one retaining the original name and another called Coleroon. Numerous channels derived from these convert the region into a delta, not surpassed by any part of Egypt or Bengal in culture and fertility. Art has been industriously employed to improve these natural advantages. The chief produce consists of rice, grain, and cocoanuts, which are largely exported. The population introduced by Moghul conquest has never reached Tanjore, and almost the only Mahomedans consist of a few refugees from Arabia. This country therefore has retained almost entire the ancient religion, constitution, and manners of India. It is particularly distinguished by the splendour of its pagodas and other edifices destined to religious worship. Tanjore was governed by an independent rajah


MAP
Shewing Mountains, Rivers, Lakes
Scale 1/100 th Inch to the Mile
or 1/6336000 of nature
30 0 50 100 150 MILES
CENTRAL PROVINCES
BENGAL
GOOMSOOR
ASKA
Chilka L.
CHETTERPORE
BERHAMPORE
GOPALPORE
JEYPORE
PALCONDAH
PARLA KIMEDY
Vamsadhara R.
CHICACOLE
Languliya R.
BIMLIPATAM
WALTAIR
VIZAGAPATAM
GOLCONDAH
NIZAM'S DOMINIONS
RAJAHMUNDRY
COCANADA
Colair L.
MOUTHS OF THE GODAVERY
AMRAVATTI
BEZWADA
GOONTOOR
MASULIPATAM
MOUTHS OF THE KISTNA
Toongabudra R.
KURNOOL
NUNDIAUL
BUNGANAPALLY
ONGOLE
Goondlacumma R.
BOMBAY
HUMPY
RAMANDROOG
BELLARY
GOOTY
ANANTAPORE
Pennair R.
CUDDAPAH
NELLORE
WESTERN
CALASTRY
TRIPATTI
Pulicat L.
PULICAT
MADANAPALLY
MYSORE
PULMANAIR
CHITTORE
POONAMALLEE
MADRAS
GUINDY
ST THOMAS MOUNT
MANGALORE
VELLORE
CONJEEVERAM
COSSOOR
ARNEE
CHINGLEPUT
SADRAS
Palaur R.
GHAUTS
MANANTODDY
JINJEE
TRINOMALLEE
CANNANORE
TELLICHERRY
SHEVAROY HILLS
YERCAUD
SALEM
PONDICHERRY
Ponniaur R.
CUDDALORE
Vellaur R.
VYTHERY
ERODE
PORTO NOVO OR FARANGIPETT
Coleroon R.
CALICUT
BEYPORE
METTAPOLLIUM
NEILGHERRY
COIMBATORE
Cauvery R.
TRANQUEBAR
COMBACONAM
Ponnany R.
PALGHAUT
TRICHINOPOLY
TANJORE
NEGAPATAM
ANAMULLAY HILLS
PULNEY
PULNEY HILLS
DINDIGUL
KODAYKARNAL
POODOOCOTTAH
POINT CALIMERE
LACCADIVE ISLANDS
COCHIN
MADURA
Vaigau R.
RAMNAUD
PAUMBEN
RAMESWARAM
QUILON
COURTALLAM
TINNEVELLY
PALAMCOTTAH
Tambrapurny R.
MALDIVE ISLANDS
CEYLON
75
80
85
20
15
10

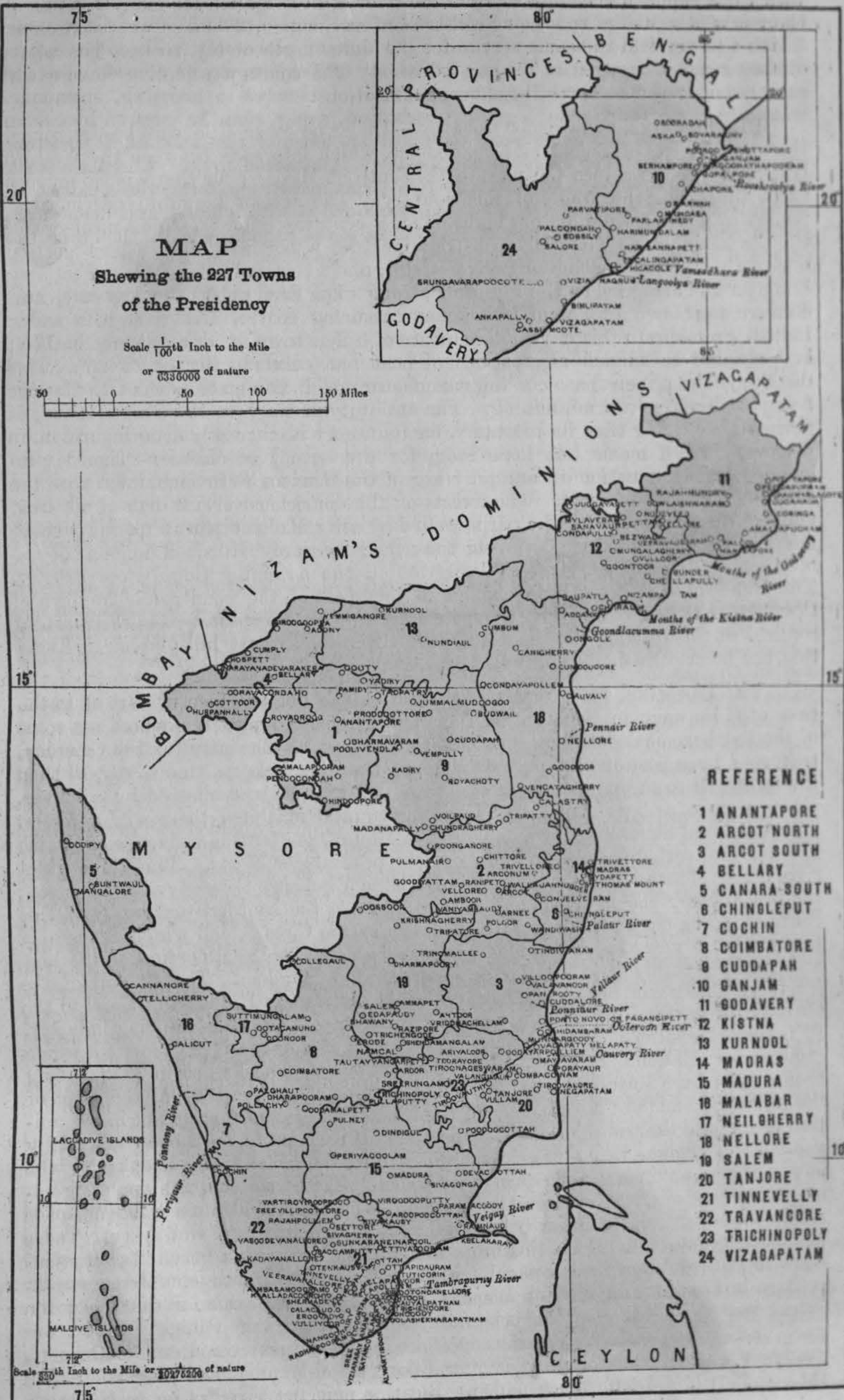
until 1799, when the British caused him to resign the administration, accepting a revenue of a lakh of pagodas, or 3½ lakhs of rupees, with one-fifth of the net revenue of the country. He was also permitted, in time of peace only, to keep possession of the town and fortress of Tanjore. The city of Tanjore may be considered as the native capital of Southern India, and the rival of Benares in learning, splendour, and antiquity. Its pagoda is greatly celebrated, rising from the ground by twelve successive stages, and considered the finest specimen of that species of structure existing in India. The usual Brahmin college is attached to it. The place is six miles in circumference, and contains two large and strong forts, the smallest of which is about a mile in circumference, surrounded with a broad and deep ditch, cut in the solid rock. In one of these forts is the pagoda, and in the other the palace of the rajah.

17. Trichinopoly is a large and strong city, farther up the Cauvery, and distinguished by being the residence of Mahomed Ally and his son, who under British protection reigned over the Carnatic. The siege of Trichinopoly in 1755 is celebrated in Indian history for the gallant defence made by British officers against the French and their native allies, which terminated in a great part of the former being obliged to surrender. Opposite to Trichinopoly is the large island of Seringham (or Shreerungam) not to be confounded with the town of Seringapatam in Mysore, formed by the two branches of the river. It contains a pagoda pre-eminent in magnitude and sanctity, being about four miles in circumference, and surrounded by seven successive inclosures. The innermost shrine has never been violated by any hostile power. It is visited by crowds of penitents from all parts of Hindostan, who bestow gifts in return for the pardon of their sins.

18. Among the sea-ports of this region special mention may be made of Negapatam at the mouth of the Cauvery, once the chief factory of the Dutch on this coast, and made by them a strong and commercial place; but it has declined in both these respects since it came under the power of Britain. At the mouth of one of the deltaic branches is Tranquebar, which the prudent conduct of the Danish Government converted from a small village to a thriving mart of trade. It is also the seat of an active mission, to which the public is indebted for some important memoirs relative to India. Devacottah, at the mouth of the Coleroon, was once a considerable British factory, and the first place in this neighbourhood where the British obtained a footing.

19. The districts of Madura, Dindigul, and Tinnevelly, added to Travancore on the opposite coast, constitute the extreme south of India. They are inferior to Tanjore in natural fertility, and as some consider in cultivation. They are less copiously watered, and a not inconsiderable part of their surface is still covered with jungle, formerly the retreat of poligars, whose incursions disturbed the pursuits of industry. Cotton forms the staple product, particularly of Tinnevelly; and a considerable quantity of coarse manufactures is transmitted to Madras. The capitals of the same name are not of particular magnitude or importance, and in their situation and structure strength was mainly studied; but since the country has attained a more settled state, their fortifications have fallen into decay. Madura is a very ancient city, and is regarded by the Hindoos as peculiarly sacred. It has a pagoda or temple much more than commensurate to the greatness of the city, and one of the most splendid in Southern India.

20. The northern part of the Carnatic still remains to be mentioned. It is generally inferior to the southern, and yields no remarkable product, either of land or manufacture. Arcot, nearly in a direct line inland from Madras, was raised to high importance by the Moghul government, who attracted by its salubrity made it their capital. It is situated however in a barren country, and is surrounded by naked granite hills. Poolicat, close to the sea and with a port, after enjoying for a long time high prosperity as the chief seat of Dutch commerce on the Coromandel coast under the name of Geldria, has since it came under the power of the British declined to the position of an inconsiderable village. There was formerly trade here with Penang. Nellore on the large river Pennair formerly exported blue chintzes for the use of the negroes on West Indian plantations, but this trade has ceased. There is an anicut across the river close to the town,


MAP
Shewing the 227 Towns
of the Presidency
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
50 0 50 100 150 Miles
CENTRAL PROVINCES
BENGAL
GODAVERY
VIZAGAPATAM
NIZAM'S DOMINIONS
BOMBAY
MYSORE
CEYLON
LACCADIVE ISLANDS
MALDIVE ISLANDS
Ponnany River
Periyaur River
Pennair River
Palaur River
Vellaur River
Ponnaur River
Coleroon River
Cauvery River
Veigay River
Tambrapurny River
Mouths of the Godavery River
Mouths of the Kistna River
Goondlacumma River
Vamsadhara River
Langoolya River
Roosikoolya River
REFERENCE
1 ANANTAPORE
2 ARCOT NORTH
3 ARCOT SOUTH
4 BELLARY
5 CANARA SOUTH
6 CHINGLEPUT
7 COCHIN
8 COIMBATORE
9 CUDDAPAH
10 GANJAM
11 GODAVERY
12 KISTNA
13 KURNOOL
14 MADRAS
15 MADURA
16 MALABAR
17 NEILGHERRY
18 NELLORE
19 SALEM
20 TANJORE
21 TINNEVELLY
22 TRAVANCORE
23 TRICHINOPOLY
24 VIZAGAPATAM

which has supplied the delta south of the river with irrigation for many years; and there is a new anicut now being constructed at Sungam, 20 miles west of Nellore, which will perform the same service for the delta north of the river. The whole of this coast is engaged in the salt industry. The country adjoining Nellore will shortly be opened out by rail-road communications.

21. THE SAME, THE CONGOO COUNTRY.—Under no other title can be designated the two districts of Salem and Coimbatore, which interpose between the Western Ghauts and the Eastern Carnatic to the south of Mysore; for there is no modern name indicating the whole of this country. The ancient kingdom bearing this name disappeared from history eight or nine centuries after the commencement of the Christian era. The Salem district includes a northern and eastern portion once called the Baramahaul or twelve estates, and a remainder consisting of country lying on and lying below the Mysore plateau. The East India Company sought to convert the town of Salem into a manufacturing centre, and a large weaving industry remains to this day. The climate of Salem town is not considered healthy, being liable to sudden alternations of heat and cold ranging up to 25°. This district is the principal seat of the manufacture of Indian steel or wootz. The ore is exposed and needs no mining. The antiquity of the process of manufacture is no less astonishing than its ingenuity, for its theory is extremely erudite, and in its discovery there seems but little room for the agency of chance. There is no evidence that any nation of antiquity except the Hindoos were acquainted with the art of manufacturing steel. The forests of the district cover a fourth of its area, and their development for the purposes of fuel will make this into an iron-producing country. Above the town of Salem tower the Shevaroy Hills. The name of the old Congoo kingdom survives in Caungyam in the adjoining Coimbatore district. The fauna of Southern India abound in this part of the country. The town of Coimbatore lies high and is a favourite station with Europeans. On the western confines of this district lie the Neilgherry Hills, the largest hill-plateau in India that has been permanently occupied by Europeans.

22. THE SAME, THE NORTHERN CIRCARS.—The old province of Orissa to the east of Gondwana in the Central Indian tableland occupied the whole sea-coast of the southern peninsula from the Carnatic to Bengal. The interior of the country, traversed by a portion of the great chain of the ghauts, is still more rugged than the tableland to the west of it; it is covered with jungle and infested by hill fever. Various rude tribes have from time immemorial inhabited these wild recesses. They rendered themselves formidable to the Mahrattas; but the influence of British law has converted them into more or less peaceable subjects. The three great rivers, the Mahanuddy, Godavery, and Kistna discharge themselves into the sea; the first towards the northern, and the two latter at the southern extremity of this country. The tract which has been known as the Circars, and which is the only part of Orissa now assigned to Madras, comprises that southern portion of it which was never securely held by the original Hindoo kingdom. The littoral of the Northern Circars is one of the most valuable districts in Hindostan; equal to the Carnatic in fertility, and formerly at least superior to it in manufacturing industry. It is remarkable also as being the first territory of any considerable extent which came under the dominion of the East India Company. The French in 1759 having been driven from Masulipatam, Lord Clive obtained from the Moghul the grant of the territory; and the Nizam, though then in actual possession, was not in a condition to dispute the transaction. The internal government has not been materially altered, the villages being ruled according to their ancient institutions; but the power of the zemindars, the principal of whom at the first occupation could assemble 41,000 troops, has been greatly broken. Calicoes and chintzes were once the staple manufacture, the finest being produced in the delta of the Godavery. These manufactures were exported to Europe and various parts of the East, but particularly to Persia, where the demand for them was most extensive. Modern competition however on the part of Bombay and England has gone far to destroy the industries. The principal exports now are in natural products. The Circars were under the Mussalman government five in number: Goontoor or Moortizanugger, Condapilly or Moostafanugger, Ellore, Rajahmundry, and Chicacole; with the coast strip of Masulipatam added. But this nomenclature has been altered by

the modern distribution of revenue districts. The important trade of this tract used to centre almost entirely in Masulipatam, a large sea-port with the best harbour in the whole coast from Cape Comorin. More than half of its exports were to Bussorah, the rest chiefly to Madras, which it supplied with a considerable quantity of grain. This place however has in its turn lost its natural advantages, and has been replaced by Cocanada which has canal communication with the deltas of the Godavery and Kistna rivers. The old district of Cuttack, now Cuttack and Pooree, traversed by the lower Mahanuddy, connects the Circars with Bengal. Cuttack the capital situated on a broad channel of the Mahanuddy, is a town of importance garrisoned by the troops of this Presidency. But the most remarkable place within the district is the holy land of Juggernaut, which comprises a circuit of fifteen miles, and is known to story as the strange scene of Indian fanaticism.

23. The same, the Ceded Districts.—These will complete the account of the Presidency. They form the Balaghaut or highlands of the old Hindoo Vijianugger kingdom, as opposed to the Payeen Ghaut or Talaghaut or lowlands of the same, already described above under the title of Carnatic. In the concluding years of the eighteenth century French alternated with English troops in the support of the Nizam at his capital. But in 1798 the Earl of Mornington finally established there a British force, and in 1800 at the conclusion of the third Mysore war the most southerly of the Nizam's territories lying below the Toongabudra river were assumed by the British as payment for that force then largely increased and declared to be stationed in the dominions in perpetuity. Thus a large tract of country was added to the British possessions in the south, which carried their power from the coast to the centre of the peninsula. The native state of Mysore was at the same time encircled. The character of this country does not differ materially from that of the Deccan plateau. Bellary the most westerly of the provinces, and including at that time what are now Anantapore and Kurnool districts, is throughout a highland; the most elevated part being to the west where the surface rises towards the culminating range of the Western Ghauts, and to the south where it rises to the tableland of Mysore. Towards the centre of the country the plateau presents a monotonous and almost treeless extent, bounded by the horizon. Water is scarce, and fodder difficult to be procured. The present district of Kurnool lies to the east of Bellary. Two long mountain ranges, the Nullamullays and the Yerramullays, extend parallel to one another north and south through it. The central portion consists of a valley of black cotton-soil, while the western portion forms part of the Mysore plateau. Anantapore south-east of Bellary was once the western limit of the real Canarese country. Cuddapah is the eastern division of the Ceded Districts, and its most mountainous part. The Nullamullay Hills separate ten miles from Cuddapah into two ranges, one running north-east towards the Tripatty Hill with peaks rising to a height of 3,500 feet above sea-level, and the other having a winding course intersected at Gundicote by a remarkable chasm 200 feet in depth through which the Pennair river flows. The town of Cuddapah is situated in a depression, and the eastern part of the district is much lower than the western. The climate of the principal town itself shows great heat during the day and oppressive closeness and stagnation of air during the night; and from these conditions of the atmosphere results its enervating influence on the European constitution.

24. Statistical Information.—Statistical accounts of districts, localities, &c., in or connected with this Presidency will be found in Vol. II, App. XII. In the Glossary and Index will be found concise statistical information under the heads of about 2,000 separate geographical names belonging to the Presidency, alphabetically arranged. In Vol. II, App. XI, some general topographical details are grouped together. In Vol. II, App. X, the principal latitudes and longitudes of the Presidency are given, arranged by districts. The first map [7] here accompanying shows

[7] Spellings authorized by Government occurring in the Map of Mountains, Rivers, and Lakes *.—Amarávati, Ánaimalai Hills, Anantapur, Árni, Aska, Banganapalle, Bellary, Berhampore, Beypore, Bezváda, Bimlipatam, Calicut, Cannanore, Cauvery, Chatrapur, Chicacole, Chingleput, Chittoor, Cocanada, Cochin, Coimbatore, Coleroon, Conjeeveram, Coonoor, Cuddalore, Cuddapah, Deväla, Dindigul, Ellore, Erode, Gingee, Godávari, Golgonda, Gopálpur, Goomsoor, Gooty, Guindy, Gundlakamma, Guntúr, Hampi, Hosúr, Jeypore, Kálahasti, Kistna, Kodaikánal, Kótagiri, Kumbakónam, Kurnool, Kuttálam, Lángulya, Madanapalle, Madras, Madura, Manantoddy, Mangalore, Masulipatam, Mettupálaiyam, Naduvatam, Nandyál, Negapatam, Nellore, Nílgiri, Ongole, Ootacamund, Palamcottah, Pálár, Pálghat, Pálkonda, Palmanér,



TRI-SECTIONAL MAP
Shewing the Principal Territorial Divisions
of the Presidency
(S. W. Section)
Scale 1/64th Inch to the Mile or 1/4055040 of nature
64 32 0 64 128 MILES
REFERENCE
Q CANARA SOUTH
R MALABAR
S NEILCHERRY
T COIMBATORE
U COCHIN
V MADURA
W TINNEVELLY
X TRAVANCORE
49 Cooroombranaud
50 Dharapooram
51 Oodamalpett
52 Tiroomungalam
53 Shreevillipoottore
54 Shunkaraneinarcoil
55 Tenkausy
56 Tinnevelly
57 Ambasamoodram
58 Nangoonairy
BOMBAY
MYSORE
SALEM
TRICHINOPOLY
TANJORE
Coondapore
Oodipy
Mangalore
Oopinungady
Cassergode
Chiracal
Cotayam
Wynaud
Calicut
Yernaud
Valavanaud
Ponnany
Polghaut
Coimbatore
Collegaul
Bhawany
Suttimungalam
Erode
Pulladam
Caroor
Pollachy
Pulney
Dindigul
Periyacoolam
Madura
Meloor
Shivagunga
Ramnaud
Shantore
Ottapidaram
Tenkaray
Ponnany R.
Periyaur R.
Veigay R.
Tambrapurny R.
LACCADIVE ISLANDS
MALDIVE ISLANDS
Scale 1/136th Inch to the Mile or 1/7603200 of nature


TRI-SECTIONAL MAP
Shewing the Principal Territorial Divisions
of the Presidency
(Central Section)
Scale 1/64th Inch to the Mile or 1/4055040 of nature
64 32 0 64 128 MILES
Reference
15 Nandigauma
16 Goontoor
17 Hoovinhadgally
18 Hurpanhully
19 Jummalmudoogoo
20 Proddootore
21 Oodayagherry
22 Madaksira
23 Vencatagherry
24 Madanapully
25 Chundragherry
26 Palmanair
27 Triveilore
28 Ponnairy
29 Wallajahpett
30 Sydapett
31 Madras
32 Conjeeveram
33 Cungoondy Z.
34 Arnee J.
35 Chingleput
36 Krishnagherry
37 Tiroocoilore
38 Poolicat L.
39 Perambalore
40 Chidambaram
41 Shiyally
42 Mayavaram
43 Combaconam
44 Trichinopoly
45 Munnilum
46 Negapatam
47 Munnargoody
48 Tirootoraypoondy
REFERENCE
D. KISTNA
E. KURNOOL
F. BELLARY
G. ANANTAPORE
H. CUDDAPAH
I. NELLORE
J. ARCOT NORTH
K. CHINGLEPUT
L. MADRAS
M. SALEM
N. ARCOT SOUTH
O. TRICHINOPOLY
P. TANJORE
NIZAM'S DOMINIONS
GODAVERY
BOMBAY
MYSORE
COIMBATORE
MADURA
Goondlacumma R.
Pennair R.
Palaur R.
Ponnaaur R.
Vellaur R.
Coleroon R.
Cauvery R.
Mouths of the Kistna R.
80°
18°
10°


TRI-SECTIONAL MAP
Shewing the Principal Territorial Divisions
of the Presidency
(N E. Section)
Scale $\frac{1}{64}$th Inch to the Mile or $\frac{1}{4055040}$ of nature
64 32 0 64 128 MILES
85°
20°
15°
CENTRAL PROVINCES
BENGAL
NIZAM'S DOMINIONS
KISTNA
Zemindarries
Goomsoor
Chilka L.
Berhampore
Rooshcoolya R.
Parvatipore
Jeypore Z.
Chicacole
Vamshadhara R.
Langoolya R.
Bimlipatam
Veeravilly
Golcondah
Rekapully
Rajahmundry
Peddapooram
Zemindarries
Yerragoodem
Ellore
Tanookoo
Mouths of the Godavery River
A
B
C
REFERENCE
1 Saulore
2 Bobbily
3 Palcondah
4 Gujapatinugger
5 Vizianagram
6 Srungavarapoocote
7 Vizagapatam
8 Ankapully
9 Sarwasiddhy
10 Bhadrachellam
11 Ramchundrapooram.
12 Amalaupooram
13 Bheemavaram
14 Narsapore
A GANJAM
B VIZAGAPATAM
C GODAVERY

the mountains, rivers and lakes of the Presidency. The second map [8] shows the 227 towns of the Presidency which are defined as such by the recent census report. The third map [9] arranged trisectionally shows the territorial divisions of the country. There has been no Gazetteer special to the Presidency published since the work issued under that title by Messrs. Pharoah & Co., in 1855. For most of the revenue districts however District Manuals have been published as described in the article on Government in connection with Literature, which along with valuable historical matter contain more or less of geographical and descriptive information.

ETHNOLOGY.

25. INTRODUCTION.—An ethnological account of an Indian people must consist of not less than five separate subjects; their race or descent, their language, their caste, their religion or sect, and their traditional habits and customs. Of these subjects the first is the most difficult to examine because it is the most involved, and the second is the easiest because it is both the most capable of definition and the most accessible. The other three, caste, religion and customs, are little more than matters of observation; but on the other hand they are very imperfect elements in anthropological inquiry, caste probably taking precedence in India among the three. It is generally considered that the most prominent test of nationality is to take race and language, and combine these together. If such is the case, there is little difficulty in showing a wide distinction between the inhabitants of south-eastern peninsular India and those of other and adjacent territories. And of that area this Presidency, touching as it does the 20th degree of latitude at the north and the 75th degree of longitude to the west is geographically and politically the chief representative. While the country which is comprised within those degrees is inhabited almost exclusively by a definite and single family of the human species, a peculiar race called Dravidian who speak the Tamul and cognate

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Palni, Pámban, Parlákimedi, Pennér, Periyár, Point Calimere, Ponáni, Pondicherry, Ponniár, Pulicat, Poonamallee, Porto Novo, Pudukóta, Quilon, Rajahmundry, Rámandrug, Rámesvaram, Ramnad, Rushikulya, Sadras, St. Thomas' Mount, Salem, Shevaroy Hills, Támbraparni, Tanjore, Tellicherry, Tinnevelly, Tirupati, Tiruvannámalai, Tranquebar, Trichinopoly, Tungabhadra, Vaigai, Vayitri, Vellár, Vellore, Vizagapatam, Waltair, Wellington, Yercaud.

[8] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN THE MAP OF 227 TOWNS*.—Addanki, Ádóni, Álvár, Tirunagari, Amalápuram, Ambásamudram, Ambúr, Ammápet, Anantapur, Anakápalle, Arkónam, Arcot, Ariyalúr, Árni, Aruppukóta, Aska, Atúr, Badvél, Bandar, Bantvál, Báruva, Bápatla, Bellary, Berhampore, Bezváda, Bhaváni, Bimlipatam, Bobbili, Boyaráni, Calicut, Calingapatam, Cannanore, Chandragiri, Chicacole, Chidambaram, Chingleput, Chirala, Chittoor, Cocanada, Cochin, Coimbatore, Conjeeveram, Coonoor, Coringa, Cuddalore, Cuddapah, Cumbum, Devakóta, Dhárápuram, Dharmapuri, Dharmavaram, Dindigul, Dowlaishwaram, Ellore, Erode, Etaiyápuram, Ganjam, Gooty, Gopálpur, Gudiyátam, Gúdúr, Guntúr, Harpanahalli, Hindupur, Hospet, Hosúr, Ichápur, Jaggayapet, Jammalamadugu, Kadiri, Kálahasti, Kalakád, Kandukúr, Kanigiri, Karúr, Kasimkót, Kávali, Káyalpatnam, Kílakarai, Kollegál, Kótúr, Krishnagiri, Kulasekharapatnam, Kumbakónam, Kurnool, Madanapalle, Madras, Madura, Mandasa, Mangalagiri, Mangalore, Mannárgudi, Máyavaram, Melapálaiyam, Námakal, Nánguneri, Nandyál, Narsannapet, Narsápur, Negapatam, Nellore, Núzvíd, Ongole, Ootacamund, Otapidáram, Pálakol, Palamcottah, Pálghat, Pálkonda, Palmanér, Palni, Panruti, Paramakudi, Parlákimedi, Párvatipur, Peddápuram, Penukonda, Periyakulam, Pithápuram, Polláchi, Pólúr, Porto Novo, Proddutur, Pudukóta, Pulivendla, Punganúr, Purushottapur, Rádhápuram, Raghunáthapuram, Rajahmundry, Ramnad, Ráyachóti, Ráyadrug, Salem, Sálúr, St. Thomas' Mount, Saidápet, Sankaranainárkoil, Sátánkulam, Satyamangalam, Sétúr, Shermádevi, Siruguppa, Sivagiri, Sivaganga, Sivakási, Srírangam, Srívaikuntham, Srívilliputur, Suradá, Tadpatri, Tanjore, Tellicherry, Tenkási, Tindivanam, Tinnevelly, Tiruchendúr, Tiruchengód, Tiruvallúr, Tiruválúr, Tiruvannámalai, Tirupati, Tirupatúr, Tiruváthi, Trichinopoly, Turaiyúr, Tuticorin, Udipi, Udaiyárpálaiyam, Udamalpéttai, Uravakonda, Vallam, Vániyambádi, Vartiráyiruppu, Vásudevanallúr, Váyalpád, Vellore, Venkatagiri, Víravásaram, Villupuram, Virudupati, Vizagapatam, Vizianagrum, Vriddháchalam, Wálajánagar, Wandiwash, Yemmiganúr.

[9] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN THE TRISECTIONAL MAP SHOWING THE PRINCIPAL TERRITORIAL DIVISIONS OF THE PRESIDENCY*.—Ádóni, Alúr, Amalápuram, Ambásamudram, Anantapur, Anakápalle, Arcot, Arcot South, Árni, Atmakúr, Atúr, Badvél, Bandar, Bápatla, Bellary, Berhampore, Bezváda, Bhadráchalam, Bhaváni, Bhímavaram, Bobbili, Calicut, Canara South, Cauvery, Chandragiri, Chicacole, Chidambaram, Chingleput, Chírakal, Chittoor, Cochin, Coimbatore, Coleroon, Conjeeveram, Coondapoor, Cuddalore, Cuddapah, Cumbum, Darsi, Dhárápuram, Dharmapuri, Dharmavaram, Dindigul, Ellore, Ernád, Erode, Ganjam, Godávari, Golgonda, Goomsur, Gooty, Gudiváda, Gudiyátam, Gúdúr, Gundlakamma, Guntúr, Harpanahalli, Hindupur, Hospet, Hosúr, Huvinahadgalli, Jammalamadugu, Jeypore, Kadiri, Kálahasti, Kallakurchi, Kandukúr, Kangundi, Kanigiri, Karúr, Kárvetnagar, Kásaragód, Kávali, Kistna, Koilkuntla, Kollegál, Kóttayam, Krishnagiri, Kúdligi, Kulitalai, Kumbakónam, Kurnool, Kurumbranád, Lángulya, Madakasíra, Madanapalle, Madras, Madura, Madurántakam, Malabar, Mangalore, Mannárgudi, Márkápur, Máyavaram, Melúr, Musiri, Námakal, Nandigáma, Nandikótkur, Nandyál, Nánguneri, Nannilam, Narsápur, Narsaraopet, Negapatam, Nellore, Nílgiri, Ongole, Otapidáram, Pálár, Pálghat, Palladam, Palmanér, Palnád, Palni, Párvatipur, Pattikonda, Patukóta, Peddápuram, Pennér, Penukonda, Perambalúr, Periyakulam, Podili, Polláchi, Pólúr, Ponáni, Ponnéri, Ponniár, Proddutur, Pulivendla, Pullampet, Punganúr, Rajahmundry, Rámachandrapuram, Rámallakót, Ramnad, Rápúr, Ráyachóti, Ráyadrug, Rékapalle, Répalle, Rushikulya, Saidápet, Salem, Sálúr, Sankaranainárkoil, Sarvasiddhi, Sattenapalle, Sátúr, Satyamangalam, Shiyáli, Siddhavattam, Sirvel, Sivaganga, Srívilliputur, Tadpatri, Támbraparni, Tanjore, Tanuku, Tenkarai, Tenkási, Tindivanam, Tinnevelly, Tiruchengód, Tirukoilúr, Tirumangalam, Tirupatúr, Tiruturaipúndi, Tiruvallúr, Tiruvannámalai, Travancore, Trichinopoly, Udamalpet, Udayagiri, Udayárpálaiyam, Udipi, Uppinangadi, Úttankarai, Vaigai, Vamsadhára, Váyalpád, Vellár, Vellore, Venkatagiri, Villupuram, Vinukonda, Vizagapatam, Vriddháchalam, Wálajápet, Walawanád, Wandiwash, Wynaad, Yernagúdem.

languages; it possesses that population almost exclusively. With the exception of the Ooriyahs (Aryans), the Sowrahs and Gadabahs (Kolarians) in the hill tracts of Ganjam and Jeypore, and the Concany Mahrattas (Aryans) of the west coast, there is in the area no tribe or people whatever occupying a tract of country who are not Dravidian; and even as to those classes intermixed with the population who represent a different element, the most important, namely the Brahmins, have adopted the Dravidian speech. On the other hand there are not many Dravidians occupying tracts outside the area. Ceylon is certainly Dravidian, but in a manner much tempered by subsequent civilizations and peculiar to itself; and apart from this the Gonds in the Central Provinces, the Oraons in Chota Nagpore, and the small tribe inhabiting Rajmahaul on the south of the Ganges, are the only known instances. For the purposes of race and speech this Presidency presents no complexities other than those ordinary conditions which are due to occasional occupation and immigration, and has a representative character of its own. As regards caste, religion and customs alone, it would be somewhat more difficult to separate it off from the rest of India.

26. RACE.—The term Hindoo though finding a frequent place in ethnological writings, is of little service if it is not a misleading expression in the case of Southern India. As employed by Europeans it designates all members of the population who are not professedly foreigners to the country, such as Mussalmans, Parsees, Europeans, &c. The excluded portion is but a fourteenth part of the population, and the whole of the remainder is unclassified. The native population themselves in using the term exclude not only the above, but also the hill and out-caste tribes; these forming a fifth of the population. On the other hand they include Jains and Booddhists whose religion is not Brahminical. It is thus with them a term indicating that special view of the race question which goes by the name of caste. This use is somewhat more precise than that of Europeans; but as it makes no distinction between Dravidian and Aryan birth, and still more as it is applied equally to the populations of this and other parts of India, it needs no argument to show that it does not suffice for the present purpose. Putting therefore the term Hindoo aside, race will here be considered under the four heads indicated by the facts special to the subject. These will be pre-Tamulian, Tamulian, Aryan, and foreign. And the two first of these will be grouped under the general term Dravidian[1].

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[1] SKETCH ACCOUNT OF THE PLACE TO BE ASSIGNED TO SOUTH INDIAN RACES AMONG THE RACES OF MANKIND.—*Introduction.*—The want of definition which has hitherto attended all questions connected with South Indian ethnology necessitates examination of the first principles connected with the subject. Among ethnologists themselves again the terminology of the science exhibits so many cross-divisions, owing to the adoption of different methods of classification, that the only available course is to select the leading classifications, and show the place which may be assigned to any given population under each of them. (2) *Classification by characteristics of the skull.*—Blumenbach of Göttingen (1752–1840) classified the human family according to skull characteristics into the following five varieties; Caucasian, Mongolian, Ethiopian, Malay, and American. In the first of these—which he made to include the Caucasians or Circassians Proper, the Celts, the Teutons, the Shemites, the Libyan family, the Nilotic family, and the Hindostanic family—the skull is large and oval, the forehead expanded, the nasal bones arched, the chin full, and the teeth vertical. In the second—which embraces the Chinese and Indo-Chinese, the natives of the polar regions, the Mongol Tartars, and the Turks—the skull is oblong, but flattened at the sides, the forehead low and receding, the nose broad and short, and the cheek-bones broad and flat, with salient zygomatic arches. In the third—embracing the Negroes, Kafirs, Hottentots, Australians, Alforians and Oceanic Negroes—the skull is long and narrow, the forehead low, the nose broad and flat, the cheek-bones prominent, the jaws projecting like a muzzle, the lips thick, and the chin small. In the fourth—embracing the Malays and Polynesians generally—the skull is high and square, the forehead low, the nose short and broad, and the jaws projecting. In the fifth—embracing the American family and the Toltican family—the skull is small, with the apex high, and the back part flat, the forehead receding, the cheek-bones high, the nose aquiline, the mouth large, and the lips tumid. This classification of the human family, with the added characteristics under each class, of complexion, hair, and eyes is, upon the whole, the most popular; Blumenbach having taken considerable pains to elaborate it and present it to the world in a form acceptable to scientific inquirers. Blumenbach's Ethiopian variety might be held to include some of the most debased hill-tribes of Southern India, with a view to their partial resemblance to the Australian type. The Dravidians are neither Mongolian nor Caucasian, but if anything between the two. Blumenbach placed the races of Upper India among the Caucasians. (3) *Classification by length and breadth of skull and position of jaw.*—This classification, devised by Retzius, is a special form of the classification by skull characteristics. When a skull is regarded from above, its length from back to front can be compared with its breadth from side to side. Taking the length as 100, the proportionate figure indicating the breadth can be regarded as the index of breadth. This index will commonly vary as much as 70, 80, and 85. Skulls with a breadth index of less than 80 are dolichocephalic, those with a breadth index of over 80 are brachycephalic and those at or about the mean are mesocephalic. West African Negroes and Australians are specially dolichocephalic, and North Asians are specially brachycephalic, and the Mediterranean races lie between the two. Under each of these classes again the jaw may project so much as to give slanting teeth, which is the prognathous type; or it may project so little as to give upright teeth, which is the orthognathous type. The West African Negroes and Australians are specially prognathous. The prognathous type is usually accompanied by a receding forehead. With these characteristics Retzius framed a system of craniology. It is not a sufficient basis for a general ethnological system. Applying these tests however to the case in point, it may be held that the Dravidian is on the average clearly mesocephalic and orthognathous. Among rude tribes dolichocephalism and prognathism are found, but not extensively. Brachycephalism is found still less, and not at all in the most southern part of the peninsula. (4) *Classification by the historical method.*—

27. Though there has been less fusion of race in Southern India than in most parts of the world, yet there has been fusion. Various conflicting considerations also necessarily arise in all examinations of race-questions. For instance the following. Southern races are darker than northern races; but this only when external conditions are the same. There is a tendency for inferior races when

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Prichard in his Natural History of Man (1855) regards man as mainly the product of his own civilization. He dissents from the use of the term Caucasian, as representing the notion that mankind had their origin on mountain heights. For himself, Prichard is of opinion that it was rather on the banks of large rivers and their estuaries that the primitive nations developed themselves. The cradles or nurseries of the first nations, of those at least who became populous and have left a name celebrated in later times, were, he points out, extensive plains or valleys, traversed by navigable channels, and irrigated by perennial and fertilising streams. Three such regions were the scenes of the earliest civilization of the human race, of the first foundation of cities, of the earliest political institutions, and of the invention of the arts which embellish human life. In one of these, the Semitic or Syro-Arabian nations exchanged the simple habits of wandering shepherds for the luxury of Nineveh and Babylon. In a second, the Indo-European or Japetic people brought to perfection the most elaborate of human dialects, destined to become in after-times, and under different modifications, the mother-tongue of the nations of Europe. In a third, the land of Ham, watered by the Nile, were invented hieroglyphical literature, and the arts in which Egypt far surpassed all the rest of the world in the earlier ages of history. Prichard without any strict classification enumerates the races of these three civilizations and their derivatives, adding grouped only by locality the remainder of the human races. In every case he carefully describes the physical appearance or structure, the geographical habitat, history, and migrations (if any), the language, and the moral and psychical attributes of the nation or tribe immediately brought under notice. His information has generally been obtained from the best sources, and hence his works may be regarded as a storehouse of knowledge upon the subject of ethnology. Prichard groups what he designates as the aboriginal races of India under four heads :—the Singhalese, including Candians, Veddahs, Singhalese proper, and all such inhabitants of Ceylon as are not Tamulians; the Tamulians of Ceylon and the peninsula; the mountain tribes of the Deccan, whose connection with the Tamulians he considers uncertain; other rude tribes of the Indian and Indo-Chinese peninsulas, in countries not far distant from the Brahmapootra. Prichard does not use the word Dravidian, but he is the first to separate off the Tamulian family in a distinct manner from the other families of mankind. (5) *Classification by a mixed method with reference to the skull, the colour of the skin, and the hair, with other characteristics added.*—Dr. Latham is the chief exponent of this method, and though chiefly concerned with the philological branch of the subject has given a complete scientific classification. His scheme is as follows.—First Great Branch.—Mongolidæ.—Physical characteristics.—Face broad and flat; frontal profile retiring or depressed; maxillary profile moderately prognathic or projecting, rarely orthognatic; eyes often oblique; skin rarely a true white, rarely a jet-black; irides generally dark; hair straight, and lank, and black, rarely light-coloured, sometimes curly, rarely woolly. Languages—aptotic and agglutinate, rarely with a true amalgamate inflection; see Language. Distribution—Asia, Polynesia, America. Influence upon the history of the world, material rather than moral. "A" Altaic Mongolidæ—"a" Seriform stock, embracing Chinese, Tibetans, Anamese, Siamese, Cambojians, Burmese, the Mon, and numerous unplaced tribes. "b" Turanian stock, embracing the Mongolian branch, the Tungusian branch, the Turk branch, and the Ugrian branch. "B" Dioscurian Mongolidæ.—"a" Georgians, "b" Lesgians, "c" Mizjeji, "d" Iron, "e" Circassians. "C" Oceanic Mongolidæ.—"a" Amphinesian stock, embracing Protonesians, Polynesians, Malegasi. "b" Kelœnonesian stock, embracing the natives of New Guinea, New Ireland, Solomon's Isles, Louisade, New Caledonia, Australia, and Tasmania. "D" Hyperborean Mongolidæ.—"a" Samoeids, "b" Yeniseians, "c" Yukahiri. "E" Peninsular Mongolidæ.—"a" Koreans, "b" Japanese, "c" The Aino, "d" Koriaks, "e" Kamskadales. "F" American Mongolidæ.—Embracing the various native tribes of North and South America. "G" Indian Mongolidæ.—"a" Tamul, "b" Pulinda, "c" Brahooi, "d" Indo-Gangetic, "e" Purbutti, "f" Cashmirian, "g" Singhalese, "h" Maldivian. Second Great Branch.—Atlantidæ.—Physical characteristics.—Maxillary profile projecting; nasal, generally flat; frontal, retiring; cranium, dolichocephalic; the parietal diameter being generally narrow; eyes rarely oblique; skin often jet-black, very rarely approaching a pure white; hair crisp, woolly, rarely straight, still more rarely light-coloured. Languages, with an agglutinate, rarely an amalgamate inflection. Distribution—Africa. Influence on the history of the world, inconsiderable. "A" Negro Atlantidæ.—Embracing various negro tribes. "B" Kaffre Atlantidæ.—Kaffre tribes, &c. "C" Hottentot Atlantidæ.—"a" Hottentots, "b" Saabs, "c" Dammaras. "D" Nilotic Atlantidæ.—"a" Gallas, "b" Agows and Falasha, "c" Nubians, "d" Bishari, "e" M'Kuafi, &c. "E" Amazirgh Atlantidæ. "F" Egyptian Atlantidæ. "G" Semitic Atlantidæ.—"a" Syrians, "b" Assyrians, "c" Babylonians, "d" Beni Terah (Edomites, Jews, Samaritans, &c.), "e" Arabs, "f" Ethiopians, "g" Canaanites, &c. Third Great Branch.—Japetidæ.—Physical characteristics.—Maxillary profile but little projecting; nasal often prominent; frontal sometimes nearly vertical; face rarely very flat, moderately broad; skull generally dolichocephalic; eyes rarely oblique; skin white or brunette; hair never woolly, often light-coloured; irides black, blue, gray. Languages, with amalgamate inflections, or else anaptotic; rarely agglutinate, never aptotic. Distribution—Europe. Influence on the history of the world, greater than that of either the Mongolidæ or the Atlantidæ, moral as well as material. "A" Occidental Japetidæ—Kelts. "B" Indo-Germanic Japetidæ.—"a" European class, embracing Goths, Teutons (Mœso-Goths. High and Low Germans, Franks), Scandinavians, Sarmatians, Slavonians (Russians, Servians, Illyrians, Bohemians, Poles, Serbs), Mediterranean Indo-Germans (Hellenic branch, Italian branch). "b" Iranian class, embracing Persians, Kurds, Beluchi, Patans (Afghans), Tajiks, Siaposh, Lugmani, Dardoh, Wokhan; "c" Unplaced stocks, Armenians, Iberians, Albanians; "d" extinct stocks. Pelasgi, Etruscans, populations of Asia Minor. It will be seen that the Tamuls are classed as Indian Mongolidæ. Latham classes with the Tamul, without using the term Dravidian, the South Indian hill and out-caste races. He adds the Kolarians of the north, and the Brahoois of Beloochistaun. Latham's basis is really philological, though not so expressed. (6) *Classification by distinctive regions.*—Agassiz' classification is into eight divisions, answering to eight regions of the earth where certain types of faunæ and man prevail. The oriental region is not confined enough to bear on the present question. (7) *Classification by the structure of the hair.*—Professor Huxley has developed the theory that race can be classified primarily by structure of the hair. The evidence is taken by examination of cross-sections of the hair under the microscope. If the hair is woolly, each hair is flattened like a tape owing to a side-way's growth; an oval section thence results. If the hair is smooth, the hair grows straight and gives a more or less circular section. Though the hair is only a subordinate morphological characteristic, it is given this prominence in ethnological inquiry because it is strictly transmitted with the race. Under this scheme the different races of mankind are divisible into two primary divisions; the Ulotrichi, (οὐλόθριξ) with crisp or woolly hair, and the Leiotrichi, (λειόθριξ) with smooth hair. "A" The colour of the Ulotrichi varies from yellow-brown to the darkest hue known among men. The hair and eyes are normally dark, and, with only a few exceptions (among the Andaman Islanders), they are dolichocephalic. The negroes and bushmen of ultra-Saharal Africa, and the Negritos of the Malay Peninsula and Archipelago, and of the Papuan Islands, are the members of this Negroid stock. "B" The Leiotrichi are divisible into :—"a" The Australoid group, with dark skins, hair, and eyes, wavy black hair, and eminently long prognathous skulls, with well-developed brow ridges, who are found in Australia and perhaps to a very small extent in the Deccan. "b" The Mongoloid group, with, for the most part, yellowish-brown or reddish-brown skins, and dark eyes; the hair being long, black, and straight. Their skulls range between the extremes of dolichocephaly and those of brachycephaly. These are the Mongol, Tibetan, Chinese, Polynesian, Esquimaux, and American races. "c" The Xanthochroic group, with pale skins, blue eyes, and abundant fair hair. Their skulls, like those of the Mongoloid group, range between the extremes of dolichocephaly and brachycephaly. The Slavonians, Teutons, Scandinavians, and the fair Celtic-speaking people are the chief representatives of this division; but they extend into North Africa and Western Asia. "d." The dark whites or

pressed by others to recede to the jungles found on the slopes of mountains; but residence on the summits of mountains themselves favours fairness of complexion and other points of superiority. Labour in the sun darkens the complexion of a race; but this is modified by climatic peculiarities. Absence of intermarriage between different races of itself develops fairness of complexion. Craniological differences give way to civilization. The distinctions between the four types abovementioned will therefore be indicated, but with a view to these different considerations it cannot be done in a rigid manner.

28. The classification itself is a matter of argument. Until recently a theory held by ethnologists was that the Aryans after invading Northern India and superseding the existing population, effected the same process in Southern India. It was held that the inhabitants thus left in occupation of the country were mainly of Aryan blood, with only a certain element of the aboriginal blood left remaining. The Aryan or Caucasian race was held to have come into contact in Southern India with another race, presumably Negrito or of the Australian type, and to have driven this for the

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Melanochroi; pale-complexioned people, with dark hair and eyes, and generally long, but sometimes broad, skulls. These are the Iberians and "black Celts" of Western Europe, and the dark-complexioned white people of the shores of the Mediterranean, Western Asia, and Persia. The Tamulian races of the plains are not here placed. (8) *The most recent survey on this method.*—Professor Haeckel of Jena has recently given a survey of the human species, in which the Dravidian family are for the first time adequately recognized. The following is his table:—

Designation according to the hair classification.		Number of the species.	Name of the species.	A.	B.	C.	Home.
Woolly-haired or Ulotrichi.	Tuft-haired or Lophocomi (about 2 millions).	1	Papuan ...	2	Re	Mn	New Guinea and Melanesia, Philippine Islands, Malacca.
		2	Hottentot ...	$\frac{1}{25}$	Re	Mn	The extreme south of Africa (The Cape).
	Fleecy-haired or Eriocomi (about 150 millions).	3	Kaffre	20	Pr	Mn	South Africa (between 30° S. lat. and 5° N. lat.).
		4	Negro	130	Pr	Pl	Central Africa (between the Equator and 30° N. lat.).
Smooth-haired or Leiotrichi.	Straight-haired or Euthycomi (about 600 millions).	5	Australian ...	$\frac{1}{12}$	Re	Mn	Australia.
		6	Malay	30	Co	Mn	Malacca, Sundanesia, Polynesia, and Madagascar.
		7	Mongol ...	550	Pr	Mn	The greater part of Asia and Northern Europe.
		8	Arctic Man ...	$\frac{1}{25}$	Co	Pl	The extreme north-east of Asia and the extreme north of America.
		9	American ...	12	Re	Mn	The whole of America with the exception of the extreme north.
	Curly-haired or Euplocami (about 600 millions).	10	Dravidian ...	34	Co	Mn	South Asia (Hindostan and Ceylon).
		11	Nubian ...	10	Co	Mn	Central Africa (Nubia and Fulaland).
		12	Mediterranean.	550	Pr	Pl	In all parts of the world, having migrated from South Asia to North Africa and South Europe.
		13	Hybrids of the species.	11	Pr	Pl	In all parts of the world, but predominating in America and Asia.
			Total ...	1,350			

Column A denotes the average number of the population in millions. Column B shows the degree of the phyleti
development of the species, thus Pre = Progressive diffusion; Co = Comparative stability; Re = Retrogression an
extinction. Column C denotes the character of the primæval language; Mn (Monoglottonic) signifies that the speci
had one simple primæval language; Pl (Polyglottonic) a compound primæval language. The four species of wooll
haired men may be reduced as in the table to two groups; tuft-haired and fleecy-haired. The hair on the head
tuft-haired men (Lophocomi, λοφόκομοι) Papuans and Hottentots grows in unequally divided small tufts. The wool
hair of fleecy-haired men (Eriocomi, ἐριόκομοι) on the other hand, in Kaffres and Negroes, grows equally all over t
skin of the head. All Ulotrichi, or woolly-haired men, have slanting teeth and long heads, and the colour of th
skin, hair and eyes is always very dark. All are inhabitants of the Southern Hemisphere; it is only in Africa th
they come north of the equator. They are on the whole at a much lower stage of development than most of t
Leiotrichi, or smooth-haired men. The Ulotrichi appear to be incapable of a high mental development. No wool
haired nation has ever had an important history. In the eight higher races of men, which are classed as smoo
haired (Leiotrichi), the hair of the head is never actually woolly, although it is very much frizzled in some individu
Every separate hair is cylindrical (not like a tape), and hence its section is circular (not oval). The eight race
Leiotrichi may likewise be divided into two groups—stiff-haired and curly-haired. Stiff-haired men (Euthyco
εἰθύκομοι), the hair of whose heads is quite straight, and not frizzled, include Australians, Malays, Mongolians, Ar
tribes, and Americans. Curly-haired men (Euplocami, εὐπλόκαμοι) on the other hand, the hair of whose heads is m
or less curly, and in whom the beard is more developed than in all other species, include the Dravidians, Nubi
and Mediterranean races. The Dravidians are thus classed with the Leiotrichi or smooth-haired; and with
Mediterraneans and others of the curly-haired variety as opposed to the Malays and Mongolians of the stiff-ha
variety. This is in accordance with the most accurate observation. The Malay and Mongolian elements are how
to be noticed in a very slight degree among the South Indian populations, and the Australian element in a la
degree.

greater part to the jungles and mountains. This is the view entertained by the large majority of Brahmins down to the present day. It may be left to writers well acquainted with the populations of Northern India to say how far the theory of Aryan occupation is true for that region, but any one who will be at the pains to read the different notices contained in these volumes will see clearly that no such event has at any time taken place in Southern India. The view of Aryans marching in bodies in this direction or in that is supported by no facts of any sort in the case of the country south of the Vindhyan mountains. Those who are now found as Brahmins by caste are only 3 per cent. of the South Indian population, and of these a very large proportion have lost the purity of their blood. The Shoodras who are the great bulk of the population enjoy that title only in relation to the caste system of the Brahmins, and are wholly divided from the Aryans by the evidence of physical conformation and language; even if no regard be paid to religion and national habits. By superiority of intellect the Aryans have moulded the institutions of this country; but they have never been its conquerors and they have only in a limited degree been its colonists. They are within a small degree as much foreigners with regard to Southern India as are the Europeans. It is a peculiarity of the Brahmin system to absorb into itself that with which it comes into contact; a justifiable pride with a view to the results attained, but one which renders no assistance to ethnological science. Southern India has no other connection with the Aryan race than that it has for many ages been under the influence of Aryan, in other words of Brahmin, administrators. A later theory of ethnologists recognises the Dravidian population, partially if not wholly; but states that it also was a migrant body entering India from the north-west. The Dravidians have been described according to the most recent authority as breaking up other races, and "rushing in a mighty body to the south." There is more abstract reason in this supposition of a Dravidian inroad from the north-west, but note must be taken of that which it involves. Unless it is supposed that the most southerly part of Asia was then destitute of a southern race, it also assumes the meeting, either for conflict or union, of two races with entirely opposite characteristics. The theory, if pushed home, would assume probably that Southern India has been occupied by two main populations; one of an Australian type coming from the south, and the other what is denominated as Scythian coming from the north-west. On examination of the evidence, no such double and opposed elements are to be traced. The characteristics of different kinds which go by the name of Dravidian do not stop short at the point to which the term Hindoo reaches, that is to say to the exclusion of the hill and out-caste tribes; but, according to the observations which have been made up to the present time, penetrate to the lowest stratum of the population. It is assumed in these pages that there are no living representatives in Southern India of any race of a wholly pre-Dravidian character, and the Dravidians are sub-divided into pre-Tamulian and Tamulian only to designate two branches of the same family, one older or less civilized than the other[2].

[2] SKETCH HISTORY OF RACE MOVEMENTS AS THEY MAY BE INFERRED FOR SOUTHERN INDIA.—*Introduction.*—The migrations and colonizations of the Indo-Aryan race in a south-easterly and southerly direction have engaged so much attention since the discovery by Europeans of the Sanscrit literature at the end of the last century, that it has checked due inquiry into other movements of races in India; and even created a tendency to suppose that all population questions in India are to be explained by migrations, and those in a southerly direction. It is possible that the Dravidian races migrated into India in a similar manner, but the matter is not in the least degree proved. Professor Haeckel mentioned in the last note has on an array of all the facts connected with ethnology constructed the most recent theory for the gradual spread of the human race from a common centre. Whether the theory prove ultimately correct or not, it embraces the greater part of the facts known at the present date. It will be adopted here as a basis for indicating the probabilities as to the origin of the South Indian population. (2) *Hypothesis of the genealogy and general migrations of the races of man.*—There are a number of circumstances (especially chorological facts), which suggest that the primæval home of man was a continent now sunk below the surface of the Indian Ocean, which extended along the south of Asia, as it is at present (and probably in direct connection at some points with it); towards the east as far as further India and the Sunda Islands, towards the west as far as Madagascar and the south-eastern shores of Africa. Many facts in animal and vegetable geography render the former existence of such a South Indian continent very probable. To this continent has been given the name of Lemuria, from the primitive mammals of that name which were characteristic of it. By assuming Lemuria to have been man's primæval home, the explanation of the geographical distribution of the human species by migration is much facilitated. Out of primæval man, there developed in the first place various species of men now unknown and long since extinct, and who still remained at the earliest stage. Two of these species, a woolly-haired and a straight-haired, which were most strongly divergent and consequently overpowered the others in the struggle for life, became the primary forms of the other remaining human species. The main branch of woolly-haired men (Ulotrichi) at first spread only over the southern hemisphere, and then emigrated partly eastwards, partly westwards. Remnants of the eastern branch are the Papuans in New Guinea and Melanesia; these in earlier times were diffused much further west (in further India and Sundanesia) and it was not until a late period that they were driven eastwards by the Malays. The Hottentots

29. Among hill-tribes the following will be considered pre-Tamulian :—the Coorumbar and Iroolar of the Neilgherry hills; the Kadar of the Neliamputties near Palghaut; the Veddahs of Madura; with many others. Among tribes still remaining in the plains the following will be considered pre-Tamulian :—the

are the remnants of the western branch, but little changed; they immigrated to their present home from the north-east. It was perhaps during this migration that the two nearly related species of Kaffres and Negroes branched off from them; but it is possible that they owe their origin to a peculiar branch of primæval men. The second main branch of primæval straight-haired men (Leiotrichi), which is more capable of development, has probably left a remnant of its common primary form—which migrated to the south-east—in the natives of Australia. Probably very closely related to these latter are the South Asiatic primæval Malays, or Promalays, which latter name may be assigned to the extinct, hypothetical primary form of the other six human species. Out of this unknown common primary form there seem to have arisen three diverging branches, namely, the true Malays, the Mongols, and the Euplocami; the first spread to the east, the second to the north, and the third westwards. The original home of the Malays must be looked for in the south-eastern part of the Asiatic continent, or possibly in the more extensive continent which existed at the time when further India was directly connected with the Sunda Archipelago and Eastern Lemuria. From thence the Malays spread towards the south-east, over the Sunda Archipelago as far as Borneo, then wandered, driving the Papuans before them, eastwards towards the Samoa and Tonga Islands, and thence gradually diffused themselves over the whole of the islands of the southern Pacific to the Sandwich Islands in the north, the Mangareva in the east, and New Zealand in the south. A single branch of the Malayan tribe was driven far westwards and peopled Madagascar. The second main branch of primæval Malays, that is, the Mongols, at first also spread in Southern Asia, and radiating to the east, north, and north-west, gradually peopled the greater part of the Asiatic continent. Of the four principal races of the Mongol species, the Indo-Chinese must perhaps be looked upon as the primary group, out of which at a later period the other Coreo-Japanese and Ural-Altaian races developed as diverging branches. The Mongols migrated in many ways from Western Asia into Europe, where the species is still represented in Northern Russia and Scandinavia by the Fins and Lapps, in Hungary by the kindred Magyars, and in Turkey by the Osmanlis. On the other hand, a branch of the Mongols migrated from North-eastern Asia to America, which was probably in earlier times connected with the former continent by a broad isthmus. The Arctic tribes, or Polar men, the Hyperboreans of North-eastern Asia, and the Esquimaux of the extreme north of America, must probably be regarded as an offshoot of this branch, which became peculiarly degenerated by unfavourable conditions of existence. The principal portion of the Mongolian immigrants, however, migrated to the south, and gradually spread over the whole of America, first over the north, later over South America. The third and most important main branch of primæval Malays, the curly-haired races, or Euplocami, have probably left in the Dravidas of this country and Ceylon that species of man which differs least from the common primary form of the Euplocami. The principal portion of the latter, namely, the Mediterranean species, migrated from their primæval home (not impossibly in Hindostan) westwards, and peopled the shores of the Mediterranean, South-western Asia, North Africa, and Europe. The Nubians in the north-east of Africa must perhaps be regarded as an offshoot of the primæval Semitic tribes, who migrated far across Central Africa almost to the western shores. The various branches of the Indo-Germanic race have deviated furthest from the common primary form of original men. During classic antiquity and the middle ages, the Romanic branch (the Græco-Italo-Celtic group), one of the two main branches of the Indo-Germanic species, outstripped all other branches in the career of civilization. (3) *Tabulation of the hypothesis.*—In Vol. II, App. XXXI, will be found the genealogy of the different races constructed according to this hypothesis. The following table exhibits in its last two columns the results of the hypothesis viewed geographically :—

Number of the species.	Name of the species.	Number of the races.	Names of the races.	Home of the races.	Direction from which the races originally came to their present home.
1	Papuan; Homo Papua.	1	Negritos	Malacca, Philippine Islands ...	West.
		2	New Guinea Men ...	New Guinea	West.
		3	Melanesians	Melanesia	North-west.
		4	Tasmanians	Van Diemen's Land	North-east.
2	Hottentot; Homo Hottentottus.	5	Hottentots	The Cape	North-east.
		6	Bushmen	The Cape	North-east.
3	Kaffre; Homo Cafer.	7	Zulu Kaffres	Eastern South Africa	North.
		8	Beschuanas	Central South Africa	North-east.
		9	Congo Kaffres ...	Western South Africa	East.
4	Negro; Homo Niger.	10	Tibu Negroes ...	Tibu District	South-east.
		11	Soudan Negroes ...	Soudan	East.
		12	Senegambians ...	Senegambia	East.
		13	Nigritians	Nigritia	East.
5	Australian; Homo Australis.	14	North Australians ...	North Australia...	North.
		15	South Australians ...	South Australia...	North.
6	Maay; Homo Malayus	16	Sundanesians	Sunda Archipelago	West.
		17	Polynesians	Pacific Archipelago	West.
		18	Natives of Madagascar	Madagascar	East.
7	Mongoian; Homo Mongolus.	19	Indo-Chinese	Tibet, China	South.
		20	Coreo-Japanese ...	Corea, Japan	South-west.
		21	Altaians	Central Asia, North Asia ...	South.
		22	Utralians	North-western Asia, Northern Europe, Hungary.	South-east.
8	Arctic Men; Homo Arcticus.	23	Hyperboreans... ...	Extreme N.E. of Asia	South-west.
		24	Esquimos	The extreme north of America.	West.
9	American; Homo Americanus.	25	North Americans ...	North America	North-west.
		26	Central Americans ...	Central America	North.
		27	South Americans ...	South America...	North.
		28	Patagonians	The extreme south of South America.	North.
10	Dravidas; Homo Dravida.	29	Deccans	Peninsular India	East probably.
		30	Singhalese	Ceylon	North probably.
11	Nubian; Homo Nuba.	31	Dongolese	Nubia	East.
		32	Fulatians	Fulu-land (Central Africa) ...	East.
12	Mediterranese; Homo Mediterraneus.	33	Caucasians	Caucasus	South-east.
		34	Basque	Extreme north of Spain ...	South probably.
		35	Semites	Arabia, North Africa, &c. ...	East.
		36	Indo-Germanic tribes.	South-western Asia, Europe, &c.	South-east.

Shaunaur of Tinnevelly; the Tamul Pariahs, Pullar, and Chucklers; the Malayalam Pooliyar; the Canarese Holayar; the Teloogoo Maulavaundloo; with others. A scientific examination of the physical characteristics of these tribes is much to be desired. Speaking from the point of view of general observation, their physical attributes differ little from what is taken as the ordinary Dravidian type. The hill-tribes above-mentioned inhabit the slopes and not the summits of the hills. The Coorumbar of the Neilgherries are small in stature. They have a peculiar face, described as wedge-shaped, with an obtuse facial angle. The cheeks are hollow, with prominent cheek-bones. The chin is slightly pointed. The eyes are moderately large, and frequently bloodshot; in colour, dark-brown. The nose has an excessively deep indentation at the root. The hair is long, black, and matted. There is scarcely any moustache or whisker, and there is a straggling scanty beard. As a rule they are sickly-looking. They are large-mouthed, with thick lips; and they are occasionally but not often prognathous. A short recurved nose is usual with the women. The Iroolar are not unlike the Coorumbar; but the cheek-bones are more prominent, and the nose is shorter and flatter. The Kadar have a type of feature inclining to the African; they are extremely small and their hair is curly and almost woolly. In the Veddahs the head is large, the mouth projects, the teeth are prominent, and the nose is flattened. The hair however is long and black. A very small and unnamed tribe of jungle-men who are prognathous and woolly-haired, exist on the Paimullay hills in the north-west corner of the Tinnevelly district. The three last examples are the extreme cases, and regarding which there might be some doubt as to calling them Dravidian. The Veddahs of Madura are however the same as the Veddahs of Ceylon. The latter, the Yakkos or demons of the Sanscrit Ceylonese authors, are always classed as part of the Singhalese race; and that is distinctly Dravidian. The Shaunaur or palmyra cultivators of Tinnevelly stand in the plains politically and socially at the head of the outcaste tribes, or plain tribes here classed as pre-Tamulian. The Teloogoo Maulavaundloo and Canarese Holayar are not separated so widely from the rest of the population as is the case with the Tamul Pariahs and Malayalam Pooliyar. The Tamul Pariah, who is often taken as the representative of these tribes, possesses higher physical

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(4) *Conclusions as to the origin of the Dravidian race.*—The facts relating to the Dravidians agree with this general hypothesis. The theory of inroad from Northern Asia has never been applied to the hill and out-caste tribes of Southern India forming a fifth of the population, and indeed in such theories their case has been always neglected. On the other hand all the facts of their present existence point to a southern origin. Regarded from the point of view of race there is nothing to show any essential difference between these tribes and the more civilized Dravidians of the plains. The ancient shepherd class of Coorumbar are represented now by one of the rudest of hill tribes, but it is assumed that they were identical in the south with the ruling power called Pallavas, who are in so many words named in Hindoo tradition as the Dravidas of Conjeeveram. The Pulliyar of Madura form another class than which there is scarcely one more wild in the Presidency, but in physiognomy and bodily characteristics they can in no way be distinguished from ordinary Tamulians. The same can even be said of the Veddahs of Madura, who represent a race still living by the chase. The stone remains known to archæology as pre-historic can be traced as appertaining to races in various stages of civilization down to races now existing and who are plainly Dravidian. These arguments might be indefinitely multiplied. Taking the Dravidians as a whole there is no evidence of a descent from the north except the existence of detached races with kindred languages, as will be seen hereafter, at certain points in the north of India. But these may quite as well have been the most advanced northern position of Dravidian tribes whence they have been driven back, as have been the remainder of Dravidian tribes left behind in a southerly movement. Indeed ordinary probabilities are much in favour of the former supposition, as the Dravidians now entirely and exclusively occupy the south. As far as this evidence goes, the Dravidians are the characteristic race of extreme Southern Asia, and they may well be the race traditionally recorded in the Homeric lines regarding the eastern Æthiops. The conclusions here arrived at may be thus illustrated by example. Great Britain is still essentially peopled by a British race in spite of Roman and Norman conquests, and even of Teutonic colonizations; and there is no real difference of race between the inhabitants of Wales and the Scottish highlands on the one side and of agricultural England on the other. France is still essentially peopled by Gauls in spite of Roman conquest and Teutonic inroads; and there is no real difference of race between the Britons and Gascons on the one side and the inhabitants of the open parts of France on the other. Spain is by race Iberian. In the same way this country is essentially Dravidian in spite of foreign influences, and there is no distinction other than that of civilization and institutions between the hill and out-caste tribes and the ordinary Tamulian of the plains. And just as it is not possible to go further back in the case of England, France and Spain than to say that they are British, Gallic and Iberian, so there is no fact in Southern India anterior to what is connected with the Dravidian race. There is only one difference in this case as compared with those, that in Southern India the foreign influences have been incomparably less; and whereas the race-question in those countries is often obscured by the new languages which have been adopted, the fact of Southern India being Dravidian is never obscured but is patent to observation. The inhabitants of the extreme south of the peninsula and those shut in by the mountains of the western coast show characteristics which are probably older and more unique than those of any other nation in the world which pretends to a civilization. (5) *Interior movements of the Dravidian population.*—Nomadism was once frequent in Southern India, and of interior migrations there are numerous traditions. Thus the Nayar of the west coast came from the North Canarese country, the Shaunaur of Tinnevelly came from Ceylon, the Vellaular of Tinnevelly came from the North Carnatic, the Todahs of the Neilgherries approached those hills through the Wynaud though originally coming from the east. Many of the followers of Ramanooja Acharry proceeded to Mysore, where they remain as a separate class speaking Tamul in their families and Canarese in public. The Reddies, an enterprizing race of agriculturists, have migrated from their original seats near Rajahmundry over the whole of Southern India, and even into the Mahratta country, where they are considered the most thriving ryots, and are met with as far north as Poona. These migrations are too numerous to be here more distinctly specified. They have often been confused with larger migrations, such as are above spoken of.

qualities than any other of such races, and in that capacity takes pre-eminence among them. This laborious population is one of the most important in the whole country. It numbers $3\frac{1}{4}$ millions in the entire population of 31 millions. The Chucklers and Pullar are inferior to the Pariahs in all particulars. The Malayalam Pooliyar are still more so, and are much blacker in complexion. A general description of all these outcaste tribes of the plains may be stated as follows. The men are small made and short in stature; with a black, not dark-brown, complexion. The forehead is low, the cheek-bones are high, the nose is rather broad, and the lips are thick. They are not as a rule prognathous or dolichocephalic. The hair belongs to the smooth type, woolly examples being only occasional. Individuals are occasionally seen with fairer or better-formed features, due to some slight intermixture of Mahomedan or Tamulian parentage; but among the inhabitants of the rural districts, regarding whom alone mention is made here, the physical type is singularly free from variety.

30. Among hill-tribes the following will be considered Tamulian, or belonging to a stage later than those described in the last paragraph :—the Khonds and Gonds of the north; the Yanaudies, Yerkalar, and Chentsoos of the east coast districts; and the Todahs and Badagahs of the Neilgherry hills; with many others. Among inhabitants of the plains the Tamulian proper of the South Carnatic will be taken as the type; and this will include tribes differing as much in the social scale as Vellaular on the one side and Kullar and Maravar on the other. The Khonds inhabit the Ganjam hills. In stature they are under the middle size, seldom exceeding 5 feet 2 inches in height. The skin is a very dark brown, and almost black in some cases. The face is flat, the forehead is low, the cheek-bones are high, the eyes are dark, the nose is flat with open protuberant nostrils, and the lips are heavy and thick. The hair is not woolly. The beard and moustaches are scanty. This tribe exhibit the Dravidian characteristics, with a very slight intermixture of the Mongolian element, which may have come from North-eastern India. The same description applies to the Gonds of the same localities. The Yanaudies of the Nullamullays are a taller race than those last-mentioned, averaging 5 feet 5 inches in height. The skin is darker. These also have a slight indication of the Mongolian type of features. The cheek-bones are prominent, the chin is pointed, and the hair on the face is very deficient. The Yerkalar of Nellore have a low forehead, small eyes, and a short nose. The Chentsoos of the Nullamullays are extremely dark-skinned, but in many ways like the Yanaudies. With the Todahs of the Neilgherries a special inquiry is opened, their features being stated to be Caucasian. Yet this assertion does not bear close examination. In many respects the physical characteristics are essentially Dravidian. The nose is large and hooked. Though the upper lip is thin, the lower lip is thick. The skin is dark in spite of a long residence on the extreme summit of the mountains. The hair does not differ from that of the Pariah races of the plains except that it is more carefully dressed. This fine race owes its distinctive qualities to its occupation and its residence, but still presents no peculiarities that are not Dravidian. The Badagah tribe resembles the natives of the plains in almost every respect. The physical appearance of the Tamulian proper of the south presents the following characteristics :—a pointed, and frequently hooked, pyramidal nose, with conspicuous nares, more long than round; a marked sinking in of the orbital line, producing a strongly defined orbital ridge; eyes brilliant, and varying from small to middle-sized; mouth large, lips thick and frequently turgid; lower jaw not heavy, its lateral expansion greater than in the Aryan, and less than in the Turanian type, giving to the middle part of the face a marked development and breadth, and to the general contour an obtuse oval shape, somewhat bulging at the sides; forehead well-formed but receding, inclining to flattish and seldom high; occiput somewhat projecting; hair fine; beard considerable, and often strong; colour of skin very dark, frequently approaching to black. Culture, judicious laws of marriage, and intercourse with foreign and northern nations, have modified and often very much improved the Tamulian type; for instance in the Nayar of the Malayalam country, the inhabitants of Coorg, and the Naidoos of the Teloogoo country. But through all the modifications, the Dravidian element is clearly distinguishable. More particular information regarding the extensive series of Tamulian races in the Presidency must be looked for in the third volume of this publication.

31. In the Aryan community of the north, at any rate at its earlier stages of development, those who composed it were divided into the four branches of Brahmins, Cshatriyas, Veisyas, and Shoodras. The Brahmins were by occupation councillors, the Cshatriyas rulers, the Veisyas cultivators and traders, and the Shoodras artizans. The well-known allegory which represents these occupations states that Brahmins proceeded from the head, Cshatriyas from the shoulders, Veisyas from the loins, and Shoodras from the feet of the deity. The males of the first three of these branches of the community were entitled to receive in youth the sacred thread as the sign of a second birth. But at an early stage of their history the Aryans extended the term Shoodra to those classes belonging to other races whose services they utilized or who were associated with their own community. This soon became a division embracing the great bulk of the population of the country of whatever occupation; and Aryan Shoodras, to however great an extent they may have originally existed, disappeared in the general population. It is doubtful whether any Aryan Shoodras ever came to Southern India. There are none there that can be recognized as such at the present day. The Shoodras of the Brahminical system are the Tamulian tribes mentioned in the last paragraph, though these never designate themselves by that title. Again many of the non-Aryan traders were permitted to take even the title of Veisya, and to assume the thread. Some Comaties and Chetties of Southern India are styled Veisyas in this way; and in the case of a few individual families, a fair complexion, high forehead, and intellectual style of feature may be taken as evidence of Aryan descent. But generally speaking there are no Aryan Veisyas in Southern India. The title of Cshatriya was also given to ruling families not belonging to the Aryan system. There are very few in Southern India who lay claim to this distinction. All that can be said on this head will be found in Vol. II, App. XXXII. The Aryans of South India are in reality the Brahmin class. These are half in number of the corresponding class in Bengal, and one-fourth in number of the corresponding class in the north-west of India. They form about one-thirtieth of the population of this Presidency. An oval contour, with ample forehead and moderate jaws and mouth; a round chin perpendicular with the forehead; a regular set of distinct and fine features; a well-raised and unexpanded nose, with elliptical nares; a well-sized and freely opened eye, running directly across the face; a sufficiency of eye-brows, eye-lash, and beard; a brunet complexion often not darker than that of the most southern Europeans: these form the general facial characteristics of the Aryans who have retained their purity of descent. This race is strictly mesocephalic. The characteristics form a marked contrast to the Dravidian type. The average height of a South Indian Brahmin is 5 feet 4 inches, somewhat shorter than that of an ordinary Vellaulan. As regards the extent of the purity of the Brahmin stock it varies through all degrees; with a strong tendency however to revert to the type of the race which is numerically the stronger, that is to say the Dravidian. Among Brahmins, the Tamul Brahmins have maintained least, and the Mahratta Brahmins have maintained most, of the purity of their descent. The Brahmins of the south who have the fairest complexions can usually point to a quite recent immigration from the north of the families from which they are descended. Brahmins have settled to the greatest extent in the Tanjore and South Canara districts.

32. Of those classed here as foreigners Mahomedans form almost the whole. The great majority of the Mahomedans of Southern India are a mixed race, descending originally from unions contracted between Arab or Persian traders and native women of the country. In these cases the physical type has reverted to that of the latter or most numerous race, in accordance with well-established law. The Moplahs of the West Coast and the Lubbays of the rest of the Presidency are the chief example of this mixed race. There is also a theory that many Mahomedan tribes or families of Southern India are ordinary Dravidians, who have merely changed their faith and their habits. In this theory there is less probability. The Pataun or Afghan Mahomedans have spread from the Mahratta country through the Deccan to the east coast and the districts south of Mysore. Some Turkish and Mongol blood is to be found in the descendants of ruling families and in the inhabitants of military stations. There are Jews at Cochin. The Christians of St. Thomas at Cochin have both Syrian and Persian blood in their veins. Of the

Portuguese, Dutch, Danish, French, and English it is needless to speak. Of all the races other than the Mahomedan the Portuguese have most married with the natives of the country, and the Jews the least.

33. LANGUAGE.—As above stated the whole of this Presidency is as regards the prevalence of languages over a tract, exclusively homogeneous and Dravidian. There is therefore very little need to go in detail into the question of the scientific sub-division of the languages of the East Indies generally. Such languages have however been divided into eight families, upon presumed ethnological affinity, thus:—Aryan, Dravidian, Kolarian, Tibeto-Burman, Khasy, Tei, Mon-Anam, and Malayan. The classification is the latest devised by students of this subject, and may have yet to be modified. The following remarks apply principally to the second of these heads, in a measure to the third, and in a very slight degree to the first[3].

34. Certain early Sanscrit writers called the languages of Southern India by the generic term of the Andhradravidabhasha; or language of the Andhras and Dravidas, that is to say of the Teloogoos and Tamulians. Canarese was included in Andhra, and Malayalam in Dravida. Menoo still more generally styled them all Dravidas. Later Sanscrit writers have quoted five Gowra languages of the

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[3] CONSPECTUS OF THE PRINCIPAL DRAVIDIAN AND KOLARIAN LANGUAGES, WITH THEIR GEOGRAPHICAL LOCALIZATION.

Name of language.	Names of the sub-divisions or dialects.	Locality where chiefly found.
	Dravidian languages.	
Tamul	Standard or modern, called Codoon.	See map.
	Literary or archaic, called Shen.	The same area.
	Iroola	Neilgherries.
	Coorumba	Neilgherries.
	Yerkala	Vizagapatam District; and Bustar, Central Provinces.
	Malasa	Anamullay Range, Northern Slope.
	Vellaula	Those on the Shevaroy Hills.
	Tanjore	Prevails in that and the adjacent districts.
Teloogoo	Standard	See map.
	Bustar	Central Provinces.
	Jeypore	Vizagapatam, Nellore, Cuddapah, and Kurnool Districts.
	Yanaudy	The same.
	Chentsoo	The same.
Canarese	Standard or modern	See map.
	Literary or archaic	The same area.
	Badagah	Neilgherries.
	Todah	Neilgherries.
	Kotah	Neilgherries.
Malayalam	Standard	West Coast.
	Forest tribes	Anamullay Range, Western Slope.
	Moplah	Cannanore.
	Laccadive	Laccadive Islands.
Mahl	Standard	Minicoy Island and Maldives.
Tooloo	Standard	West Coast.
Codagoo	Standard	Coorg.
Khond	Standard	Frontier of Bengal and Madras.
	Goomsoor	Ganjam District.
	Daringabady	Ganjam District.
	Orissa Mahauls	Bengal.
Gond	Standard	Central Provinces.
	Gayety and various other minor dialects.	Northern Districts of India.
	Mariah and various other minor dialects.	Bustar, Central Provinces.
	Kooi Keitor	North of the Nerbudda River, in this Presidency.
Oraon	Standard and dialects	Bengal.
Rajmahaul	Standard	Bhaugalpore Hills, Bengal.
Keicaudy	Standard	Wandering tribes of Deccan.
Singhalese	Modern, Archaic, Veddah, Rodiyah, &c.	Ceylon.
	Kolarian languages.	
Sowrah	Standard	Mahendra mountain in Ganjam District.
Gadabah	Standard	Ganjam District; and Bustar, Central Provinces.
Santaul	Standard and dialects	Bengal.
Moondaury	Standard and dialects	Chota Nagpore, Bengal.
Juang	Standard	Tributary Mahauls of Cuttack, Bengal.
Korwa	Standard	Chota Nagpore, Bengal.
Koor	Standard	Central Provinces.

north, and five Dravida languages of the south; the latter being Telinga, Carnautaca, Mahrattee, Goorjara, and Dravida proper or Tamul. But in this last arrangement Mahrattee and Goozerattee are grouped without philological reason with the others. The word Dravida appears to be an original Sanscrit word. It has been adopted lately by Europeans to indicate the whole of the languages special to the south-east and south of the peninsula and the corresponding races, and implies a generalization of the first importance in all matters relating to the population. The principal languages in the north of India are Punjaubee, Sindhee, Goozerattee, Hindee, Oordoo, Bengalee, Mahrattee and Ooriyah; languages bearing the same relation to Sanscrit which Italian and Spanish bear to Latin, and called by the grammarians of the country Pracrits. These languages belong to the inflectional stage, in the generally received morphological scheme for the classification of languages[4]. In some respects they belong to the still later or analytical stage. The inflections of words in these languages are merged in the roots, or are even wholly lost. The Dravidian languages, unlike the North Indian languages and still more unlike the original Sanscrit, are agglutinative. That is to say the root of words is never obscured, and the determining or modifying syllables of words are with small exception placed at the end, and are felt as something distinct from the root. The classification under the scheme just mentioned being based on formative considerations of an ultimate nature, and the evidence on this head being conclusive with respect to the Dravidian languages, it is sufficient to make the plain statement that they have no essential connection of any sort with the Aryan or quasi-Aryan languages of Northern India. The contrary indeed has been vehemently asserted till within a late period in the present century, but only owing to imperfect recognition of the laws which regulate the

[4] VIEW OF THE MORPHOLOGICAL STAGES OF LANGUAGE WITH REFERENCE TO THE DRAVIDIAN LANGUAGES—*Introduction.*—The machinery of a language is divisible into two parts, that of words and that of inflections. A word is the bare expression of a thing, a state, or an action; as 'man,' 'be,' 'do.' An inflection is that sound or syllable or combination of sounds, which is used to modify the abstract word with respect to time, place, or relation. The amount of cohesion between the word and its inflection varies in different languages from mere juxta-position to complete amalgamation; that is to say, in some languages the inflections are merely written side by side with the word, while in others the inflection is so mixed up with the word as to be entirely one with it and quite inseparable from it. The degree and nature of this cohesion furnish the morphological method for the classification of languages, in many respects the best that has yet been devised. (2) *The first stage.*—In the first and earliest stage of a language as exhibited in Chinese and other monosyllabic languages, the inflection is itself a word capable of being used independently, and is not incorporated with the root in any way. Modifications of the primary idea are affected by prefixing or affixing words to the word which is to be modified; and these prefixes or affixes obtain when so employed a meaning different from that which they have when used alone, though no alteration takes place in their form. (3) *The second stage.*—The next step is that the afformatives or inflections lose their meaning as separate words, and only continue to exist as inflections. Examples of this stage occur even in Chinese. The Turkish is a familiar instance of a language constructed entirely on this principle. The Dravidian languages also are in this stage, as will be seen from the following examples taken from Teloogoo. The Teloogoo noun is unchangable in its form. A root or stem-word becomes a noun when nominal suffixes are added to it, or a verb when verbal signs are written after it; but it undergoes in itself no change, or at most a slight euphonic change. Thus (gurramu) 'a horse,' becomes (gurramu-yokka) 'of a horse'; and the syllables (nu), (ku) or (ná-ku), (chéta), (ló), when affixed to the same unaltered word (gurramu), produce the significations respectively of the accusative, dative, instrumental, and vocative cases. By inserting the syllable (la) between (gurramu) and the above suffixes, the idea of plurality is acquired; thus (gurramu-chéta) 'by a horse,' (gurramu-la-chéta) 'by horses.' The same process takes place in the pronouns, except that those parts of speech have been exposed to much detrition; so that whereas there is found in the nominative (nénu) 'I,' there is found in the other cases only (ná), as (ná-ku) 'to me.' So (nívu) 'thou,' but (ní-chéta) 'by thee.' The Teloogoo verb is merely a stem-word combined with a considerable variety of suffixes, and as before stated would become a noun if combined with nominal suffixes. A verb may be positive or negative, transitive or intransitive, active or passive, or causal. Thus there is the positive, transitive and active verb (pampu) 'to send'; this becomes negatively (pampa) for (pampu-a) by addition of the negative particle (a), 'not to send.' The addition of (intsu) makes it causal, as (pampintsu) 'to cause to send.' If there is affixed the verb (baḍu) 'to suffer,' there is obtained the passive verb (pampu-baḍu) 'to be sent' (lit. 'to suffer a sending'). In some languages of this class, the passive is formed by adding a particle (un), meaning 'to eat.' The tenses of the verb are built up in the same way. There is first the stem-word (pampu), conveying the bare idea 'sent'; to this is added the syllable (tu), which gives the idea of present time; and to this again (nánu), meaning 'I.' The result is (pamputunnánu) 'send-now-I,' or 'I send'; similarly (pamputunnávu) 'send-now-thou,' or 'thou sendest.' The same process is followed in the formation of all the other tenses. The Dravidian languages exhibit the afformative particles in a state where they are beginning to be modified by euphonic considerations, that is to say dropping letters in one place and changing vowels in another. These particles however, though losing their original form, are still independent and separable from the stem-word; and that itself remains unchanged. (4) *The third stage.*—The next stage in language is that in which the words used as inflections have not only lost their original form, but have become so incorporated with the stem-word which they serve to modify, as to become one word with it, and to be no longer capable of identification as separate words except by processes of elaborate analysis. This stage is called inflectional. Sanscrit and the other languages of the Indo-Germanic family offer abundant examples of the class. (5) *The fourth stage.*—There is yet one more stage in languages, and the last which any language has yet reached. It is that in which the inflection has become so abraded that not a trace of it remains, and with the vestiges of the inflection the modification of sense effected by it have also a tendency to disappear. Additional words must then be called into use to retain the distinctions of sense. Languages in this stage resemble at first sight those in the first or syntactical stage, in so far as they also express modifications of sense by particles having an existence independent of the stem-word. To understand this stage, the example of the French verb can be taken. The terminations 'o' and 'at' in the Latin 'porto' and 'portat' being lost, there remains no inflection to distinguish 'porte' = 'porto' from 'porte' = 'portat.' Hence the introduction of 'je' and 'il' prefixed to fulfil that function. In this stage of languages, called the analytical, much of the sense necessarily depends on the order of words in the sentence. It may be asserted on one side that it is the highest effort of the human intellect and on another that it is an instance of decadence in it.

comparative science of language. The two sets of languages indicate a different order of mind on the part of the population using them, and without difficulty the questions thence arising might be brought within the sphere of political ethnology. Looking to the more detailed facts of grammatical inflection and usage, there are points of resemblance as well as of difference between the two classes of languages[5]. But the latter much outweigh the former in number and importance; and in any case it is not necessary to consider these matters in the face of those more ultimate facts which are involved in the arguments connected with radical word-formation. As regards the position of the Dravidian languages among non-Aryan languages the question is more subtle. They have been roughly classed as Turanian languages [6], but this description must be taken with reservation. An essential characteristic of the North European and North Asiatic languages which have given their name to that large class is that a certain allied or harmonic sequence exists among the vowels in the roots, and that the vowels in the portions attached to the roots show also a sympathy with the root vowels. This does

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[5] Points of Grammatical Difference and Resemblance between the Dravidian and Indo-European Families of Language—*Points of difference.*—In the Dravidian languages all nouns denoting inanimate substances and irrational beings are of the neuter gender. The distinction of male and female appears only in the pronouns of the third person, in adjectives formed by suffixing the pronominal terminations, and in the third person of the verb. In all other cases the distinction of gender is marked by separate words signifying 'male' and 'female.' This rule accords with the usage of the Scythian group of languages, but presents a contrast to Sanscrit and other Indo-European languages. Dravidian nouns are inflected, not by means of case-terminations, but by means of suffixed postpositions and separable particles. Dravidian neuter nouns are rarely pluralised. The Dravidian dative (ku), (ki), or (ge) bears no analogy to any dative case-termination found in Sanscrit or other Indo-European languages. Dravidian languages use postpositions instead of prepositions. In Sanscrit adjectives are declined like substantives, while in Dravidian adjectives are incapable of declension. It is characteristic of Dravidian languages in contradistinction to Indo-European, that, wherever practicable, they use as adjectives the relative participles of verbs, in preference to nouns of quality, or adjectives properly so called. A peculiarity of the Dravidian dialects is the existence of two pronouns of the first person plural, one inclusive of the person addressed, the other exclusive. The Dravidian languages have no passive voice, this being expressed by auxiliary verbs signifying 'to suffer,' &c. The Dravidian languages, unlike the Indo-European, prefer the use of continuative participles to conjunctions. The Dravidian verbal system possesses a negative as well as an affirmative voice. It is a marked peculiarity of the Dravidian languages that they make use of relative participial nouns instead of phrases introduced by relative pronouns. These participles are formed from the various participles of the verb by the addition of a formative suffix. Thus the person who came is in Tamul வந்தவன் literally 'the who came.' The situation of the governing word is characteristic of each of these families of languages. In the Indo-European family it usually precedes the word governed; in the Dravidian and in all Scythian languages it is invariably placed after it, in consequence of which the nominative always occupies the first place in the sentence, and the one finite verb the last. (2) *Points of resemblance.*—The following are points of resemblance:—The use of 'n' as in Greek, to prevent hiatus; the existence of gender in the pronouns of the third person and in verbs, and in particular the existence of a neuter gender; the use of 'd' or 't' as the sign of the neuter singular of demonstrative pronouns, or pronouns of the third person; the existence of a neuter plural in short 'a' as in Latin; the formation of the remote demonstrative from a base in 'a,' the proximate from a base in 'i'; the formation of most preterites as in Persian, by the addition of 'd'; the formation of some preterites by the reduplication of a portion of the root; the formation of a considerable number of verbal nouns by lengthening the vowel of the verbal root.

[6] Conspectus of the Three best known Groups of Languages—*Introduction.*—Viewing languages historically, philologists have selected three main groups, Aryan, Semitic, and Turanian. This classification does not go deeply into questions of morphology, but it is the best known. (2) *Aryan.*—This family of languages has received several names. It is the Indo-European and Indo-Germanic of some philologists. Pictet and Burnouf have called it Aryan from a Sanscrit root meaning 'to plough,' also found in the Latin 'arare,' the Greek ἀρόω, and the English 'ear' in the sense of 'to till.' In later Sanscrit 'arya' came to mean 'noble;' in which sense the same root appears in the Greek ἄριστος, and the German 'ehre.' Rask has called this family the Japhetic. It has six divisions:—(a) Indic, including Sanscrit, Pracrit, Pali, Indian Dialects, Gipsy Dialects, &c.; (b) Iranic, including Zend, the language of the Persian Cuneiform Inscriptions, Parsee, Persian, &c.; (c) Celtic, including Cornish, Welsh, Armorican, Gaelic, Erse, Manx, &c.; (d) Græco-Latin, including Greek ancient and modern, Latin, Portuguese, Spanish, Provençal, French, Italian, Roumansch, Wallachian, &c.; (e) Slavonic, including Old Prussian, Lithuanian, Lettish, Bulgarian, Russian, Polish, and Bohemian; and (f) Teutonic, including Old and Middle High German, Modern German, Gothic, Anglo-Saxon, English, Old Saxon, Frisian, Dutch, Icelandic, Swedish, Danish, &c. Of these it is uncertain whether the Celtic or the Indic group represents the older phase. But all of them are the daughters of a primeval form of language which has now ceased to exist. By the method of examining languages through their grammatical forms rather than by separate words, Schlegel has shown the intimate historical connexion between the Sanscrit, the Persian, the Greek, the Roman, and the Germanic languages. Grimm discovered, as the law of transposition of sounds in the Sanscrit, Greek, Roman and Gothic words, that the letters P, B, F are interchangeable; also T, D, and TH; also G, K, and CH. These changes occur in a cycle. Thus a P in the oldest form of a word is found at a later stage transformed into F, which next passes into B; and this again tends to become P, and go through the cycle anew. (3) *Semitic.*—This has been so named by Eichorn, from the name Shem. It is the Syro-Arabian of Farrar, and the Arabic of Leibnitz. The race speaking this family of languages, ignorant of science and theocratic, has devoted itself to the expression of religious instincts and intuitions, in other words to the establishment of monotheism. The family has three main branches. The first is the Northern or Aramaic, divided into two dialects, Syriac, Chaldee. The second is the Middle or Hebraic, the chief language of which is Hebrew, but with which are connected the Carthaginian and Phœnician. The third is the Southern, the chief representative of which is Arabic, with the older or Himyaritic form of which the Ethiopic is closely allied. Besides these, Egyptian, Babylonian, Assyrian and the Berber dialects are considered to have a Semitic character. The chief characteristic of this family of languages is the preponderance given to the consonants in contradistinction to the vowels. (4) *Turanian.*—The words Turanian, Nomadic or Allophyllan are applied to all languages spoken in Asia and Europe, and not belonging to the Aryan or Semitic; with the exception of the Chinese and its cognate dialects. These languages are divided into two great branches, the Northern and the Southern. The Northern division includes the Tungusic, Mongolic, Turkic, Finnic, and Samoyedic. The Southern division comprises among others the Gangetic group, including Thibetan, Bhootanese, &c.; the Taic, including the dialects of Siam; and the Malaic, or Malay and Polynesian dialects. The marks of union in these languages are however vague, if compared with the definite ties of relationship which severally unite the Semitic and Aryan. The Turanian languages occupy by far the largest portion of the earth, but, except agglutination and what is stated in the text, there are no principles which have any general prevalence among them.

not exist in the Dravidian languages[7]. If therefore these languages are for convenience styled Turanian, they represent a distinct group of that class. A classification of languages has recently been made, based primarily on certain special methods of thought shown in them, but requiring the formative classification to complete it. Of this the major heads are the recognition or non-recognition of grammatical gender, and the minor heads are connected with the mode of forming terms of kinship. The Aryan languages are here classed as languages which recognize three grammatical genders; masculine, feminine, and neuter. The Dravidian languages are classed with Chinese, Japanese, Finnish and Turkish; as languages which do not recognize grammatical gender, but which are to a considerable degree advanced in their method of distinguishing sex in connection with consanguinity. As regards the question of vocabulary or word contents the Dravidian languages have largely borrowed from Sanscrit, especially in the case of Teloogoo and Malayalam. Numerous disquisitions have been written on this subject, which are useful so long as they do not obscure the fact that such points illustrate only the accidents of the history of a language and reveal nothing as to its ultimate origin or constitution[8]. With regard to history, it does not neces-

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[7] Note on the Absence of the Turanian Harmonic Sequence of Vowels in Dravidian Languages.—The vowel-sounds of Turanian languages are found to be divisible on physiological grounds into three classes, called hard, soft and neutral. In the typical Ugro-Finnish dialects those taken as hard are a, o, u; the soft are more or less the same as the German ä, ö, ü; the neutral, which do not admit of the modifications called in German umlaut, are e, i. The roots of the Turanian vocabularies show this peculiarity that there is a strong tendency for either hard vowels or soft vowels to co-exist in the same root, though this is not the case with the neutral vowels. The roots are accordingly divisible for the most part into hard roots and soft roots. The suffixes by which the grammar is formed adapt themselves to the prevailing character of the root, according as it is hard or soft, and for that purpose every suffix has two forms. Words borrowed from foreign languages even are subjected to the same law. The first question then that arises is whether Dravidian vowel-sounds can be divided into hard, soft and neutral? This could undoubtedly be done, but the distinctions are not known to native grammarians. The second question would be whether any division of Dravidian roots into hard and soft is possible, and whether the vowels in each radical are of one kind or class. This is not the case. In Finnish kala is fish, and its ablative is kalabta; isë is father, and its ablative is isëltë. Here harmonic sequence is seen. In Tamul however every variation is possible:—(kaḍal), (káḍu), (kiḍai), (kízhór), (kúḍal), (kúṭṭam), (keḍuthi), (kéḷvi), (kómán), (víṭṭóram). No trace of such limitation is to be discovered in Tamul or in any other Dravidian dialect. The third question is whether the vowels of the suffixes in the Dravidian languages assimilate themselves to those of the stem to which they are appended. Of this there is no trace. In Tamul there is:—(Koḍukkiṛ) + (én), 'I give'; + (án), 'he gives'; + (óm), 'we give'; + (ír), 'ye give.' And the same pronominal endings, (én), (án), (óm), and (ír), are added to every verbal stem, whatever its vowels may be, without any change. In certain cases where a connecting vowel is used, that vowel is determined by the vowel of the suffix. But it cannot be said that in any Dravidian dialect there is a systematic change of the vowel of a suffix, or inflectional increment, in order to adapt it to the vowels of the stem to which it is appended. Finally do the Dravidian languages alter the vowels of foreign words which they adopt according to any supposed law of harmonic sequence? Detailed rules are given by the Jain grammarians for the spelling of Sanscrit words received into Tamul and Canarese; but these affect the consonants almost entirely. There is no case where the vowels are changed in obedience to any principle. It will be seen therefore that the law of harmonic sequence does not hold good in the Dravidian languages. In the Dravidian languages there are four recognized cases where the vowel changes its sound: (í) before a lingual is pronounced nearly as (ü); (a) in a final syllable becomes occasionally (e); final (u), in certain cases, is sounded much as a French u; and the diphthong (ai) is pronounced variously according to its position in a word. But these changes are not of the same nature as those above described.

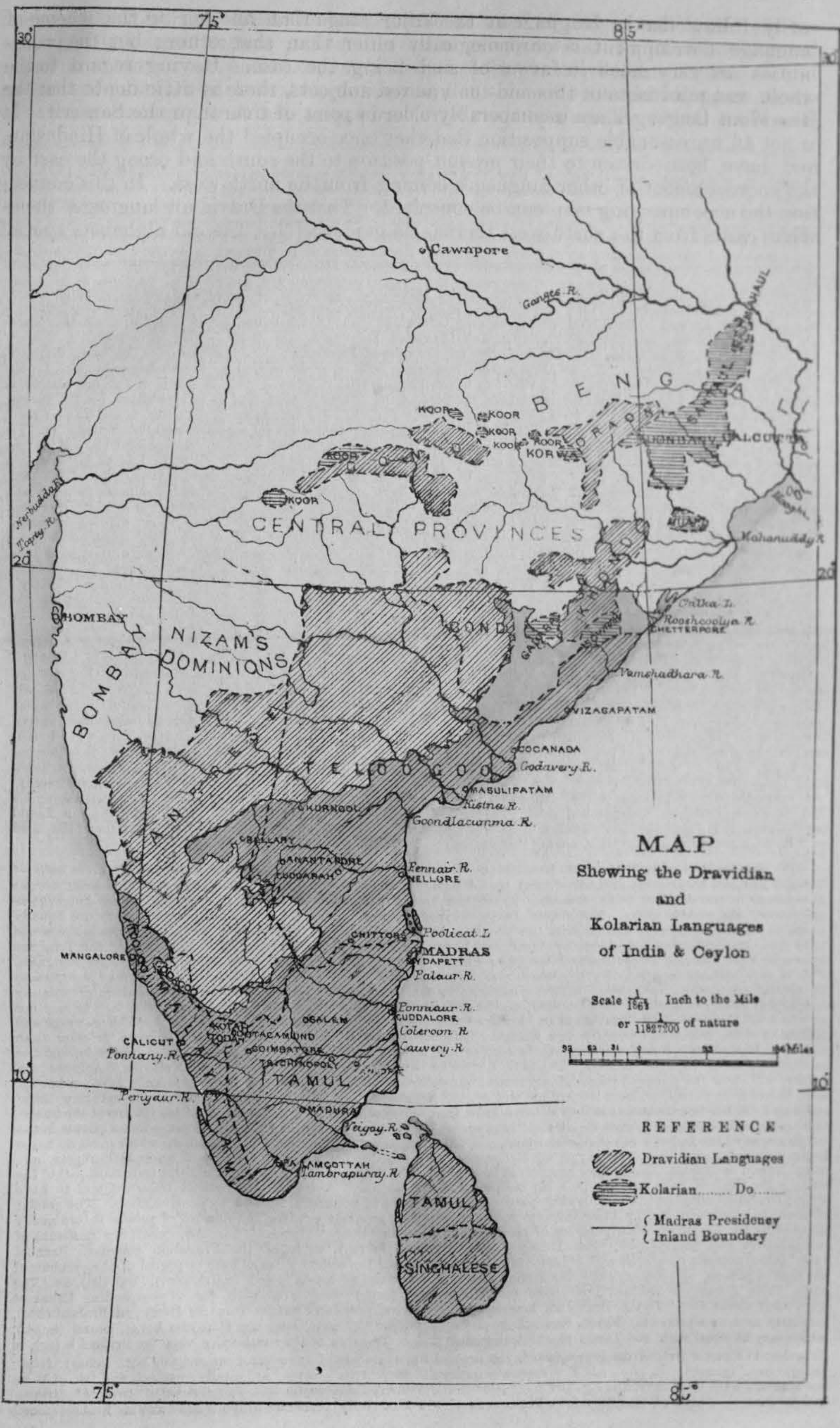
[8] Sketch Account of the Vocabulary of the Dravidian Languages—*Introduction.*—As stated in the text the information given by South Indian grammarians themselves is quite explicit and sufficiently satisfactory on this point. Teloogoo will here be considered first as being the language which has come into the most direct contact with Aryan influences. (2) *Teloogoo pure words.*—Maumidy Vencayya, a Teloogoo Brahmin and the author of a Teloogoo dictionary called Andhra Deepica, thus describes pure Teloogoo words:—"All those words which are in use among the "several races aboriginal to the country of Andhra, which are perfectly clear and free from all obscurity, these shine forth "to the world as the pure native speech of Andhra." He gives twenty-five examples. No Teloogoo scholar is at a loss to state whether a word is pure Teloogoo or not. Such words are called 'attsa Teloogoo,' or typical Teloogoo. Of the whole vocabulary these form half. (3) *The same, rustic varieties.*—The same grammarian defines these thus:—"Terms "which cannot be subjected to the rules of grammar, and in which an irregular increment or decrement of letters "occur are called graumyam; they are corruptions." The distinction between these and pure Teloogoo words is unimportant, and modern philology would probably pronounce many of the corruptions to be old grammatical forms. These were included in the pure Teloogoo words, when stating that those were half the vocabulary. (4) *The same, words derived direct from Sanscrit.*—The grammarian thus defines these:—"Tatsama words consist of Sanscrit terms pure as spoken in heaven, the Teloogoo terminations only being substituted for those of the original language." He gives twenty-one examples. Tatsama words are easily to be recognized by any Sanscrit scholar. These words form three-twentieths of the whole vocabulary. (5) *The same, words derived from the Sanscrit with changes.*—The grammarian thus defines these:—"Tadbhava words are terms formed either from the Sanscrit direct or through one of the six pracrits; varied "by the interposition of syllables, and by the substitution of increment and decrement of letters." Then follow examples under each of the above seven heads. Tadbhava words cannot always clearly be distinguished from pure Teloogoo words. One half of the Tadbhavas are said to be direct from the Sanscrit, and the greater number of the remainder form the Mahratta pracrit. Tadbhava words form altogether one quarter of the whole Teloogoo vocabulary. (6) *The same, foreign words.*—A stanza from the Appacaveeyam, a commentary on etymology and prosody, thus describes these:—"O Kesava, the natives of Andhra, having resided in various countries, by their using Teloogoo terms conjointly with "those of other countries, these latter have become Andhra terms of foreign origin." It would be equally true to say that these terms have been introduced by foreigners residing in the Teloogoo country. Aryans are not regarded as foreigners in these classifications. Most of the foreign words come from Hindostany. They are easily recognizable by their form. They may be regarded as one-tenth of the whole Teloogoo vocabulary. (7) *Application of this division to the other Dravidian languages.*—The same distinctions are made by Tamul and Canarese grammarians. Tamul takes many less tatsamas than either Teloogoo or Canarese, and Tamul Shoodras use them very sparingly. On the other hand Tamul grammarians owing to the peculiarities of the Tamul alphabet reckon many words as tatsamas which would not be so recognized in the other languages. Of tadbhavas Canarese has the largest number, probably owing to its proximity to the Mahratta country. The greater number of the Sanscritic and Pracritic words in the Dravidian

sarily follow that a language at an earlier stage than another in the scheme of language development is chronologically older than that other; but the probabilities are very much in favour of such being the case. Having regard to the whole range of facts in this and the kindred subjects, there is little doubt that the Dravidian languages are incomparably older in point of time than the Sanscrit. It is not an unreasonable supposition that they once occupied the whole of Hindostan, and have been driven to their present position to the south and along the east by the encroachment of other languages coming from the north-west. In this connection the accompanying map can be consulted. That the Dravidian languages themselves came from the north-west there is no evidence[9]. The old alphabets special

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languages were introduced by the Jeina writers. Some tatsamas however were introduced by the three comparatively modern philosophic schools; the Sheivasiddhaunta, the school of Shuncaracharya, and the school of Ramaunoojacharya. Sanscrit words are said to have been introduced even before the time of the Jeinas, but it is doubtful whether these are not ancient words common to both Aryan and Dravidian languages. (8) *Rules for the introduction of Sanscrit words into the Dravidian languages.*—The following are the rules of Pavanandy, the Jeina author of the Tamul Nunnool, or work on grammar :—"*a.*" To an Aryan word beginning with r, prefix a, i, or u; to one beginning with l prefix i or u; to one beginning with y prefix i. No Tamul word begins with r, l, or y. "*b.*" In each of the five classes of gutturals, palatals, linguals, dentals, and labials, the first of the class, k, ch, ṭ, t, p, is to be written for the second, third, and fourth of the class :—k for k, kh, g, and gh; —ch for ch, chh, j, and jh; —ṭ for ṭ, ṭh, ḍ, and ḍh; —t for t, th, d, and dh; —p for p, ph, b, and bh. The Tamul has no separate characters for aspirates and flat mutes. "*c.*" j is sometimes = y. "*d.*" Of the sibilants ś is expressed in the beginning of the word by the palatal ch, and in the middle of a word by y; sh is to be transliterated by ch or ṭ; s is to be replaced by ch or t; h is to be written a or g; ksh is to be written kk. "*e.*" Final á is to be written ai, and final i becomes short. It may be added that, although the Teloogoo, Canarese, and Malayalam languages have adopted the Sanscrit alphabet almost entirely, and can thus transliterate any word they receive from Sanscrit with perfect exactness, nevertheless words which represent the same Sanscrit forms are found in these languages changed according to laws similar to those existing in Tamul. (9) *Comparison of Sanscrit original roots and Dravidian original roots.*—To show the very great amount of difference between the Sanscrit and Dravidian languages even in regard to vocabulary, ten verb-roots have been taken in alphabetical order under the letters a, k, p and v from a common Sanscrit Dhautmaula or list of roots, and with them have been compared ten Teloogoo roots under the same letters taken from Pattabhirama Shastry's Teloogoo Dhautmaula. The result is to show that of the forty roots not one has the same meaning in the two sets of languages. Again sixty words of very common meaning have been taken from the English, and the Sanscrit and Tamul most usual equivalents set against them. The result shows that none of the latter resemble each other. The tables in these two cases can be seen in Volume III under the head of "Roots, absence of similarity between Sanscrit and Dravidian." As opposed to this recent writers have discovered numerous cases in which the roots of the sets of languages agree in meaning. As these glossarial affinities lead to endless disquisition they will not be further noticed here. They do not affect the immediate question of the relationship between the North and South Indian languages for two reasons. In the first place the points of difference shown in at any rate the first of the two tables mentioned above have appeared on taking the words without design in alphabetical order from an independent native source, while these points of resemblance have to be sought for. In the second place the latter, even when found, are in the great majority of cases common not only to these two, but to very many, sets of languages; thus proving too much. That all mankind are ultimately allied in speech, there is no doubt; but that is not the subject here in hand. (10) *Connection of the Dravidian roots among themselves.*—It was mentioned above that Maumidy Vencayya gives twenty-five examples of pure Teloogoo words. He was a Teloogoo scholar not acquainted with any other Dravidian dialect; his list is consequently an independent one. Taking this list, and setting against each word Canarese and Tamul equivalents, it is found that the roots are in each case identical. This table can be seen in Volume III under the head of "Roots, connection of Dravidian, among themselves."

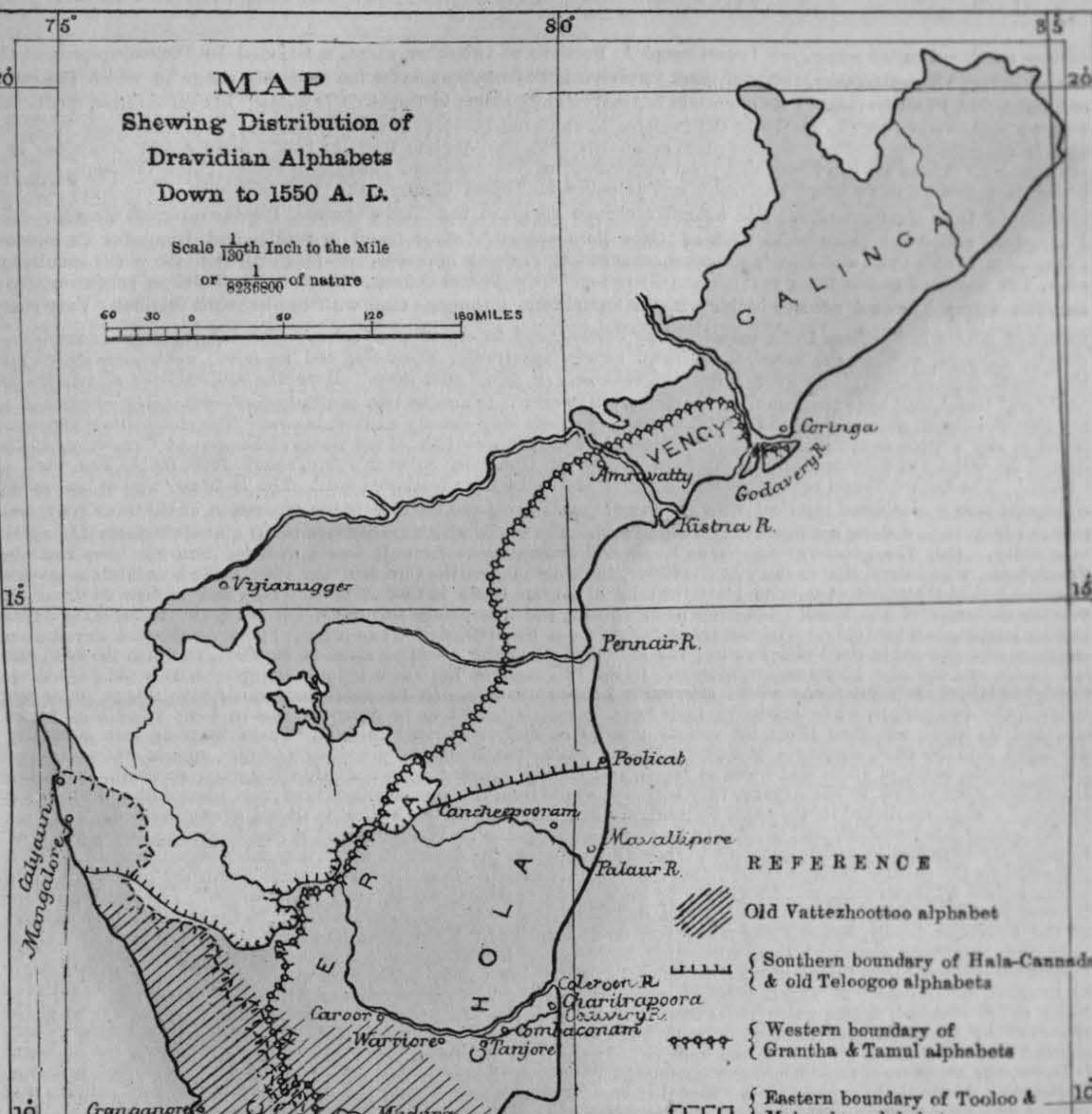
[9] SKETCH HISTORY OF DRAVIDIAN LANGUAGES—*Absence of languages showing preceding races in Southern India.*—Though archæological remains and general considerations prove the existence of many races of men prior to the Dravidians in the south of India, it cannot be said that much evidence of this comes from the science of language in the present state of the study. Languages are under many circumstances singularly persistent; but they are equally liable to be lost, especially among primitive peoples. It has yet to be ascertained how many languages in the world have come into existence, have been developed, and have then disappeared. In India the Kooch tribe of the Terai are known to have lost the Tibeto-Burman language which belonged to them, and to have adopted in its place Bengalee. This is only one instance out of many which must have occurred. It is possible that future research may show traces of several populations antecedent to the Dravidian in Southern India derived from the vocabulary of existing languages; but grammatically no such language has survived, unless it be that of the Kolarians, who may or may not have actually preceded the Dravidians on the same area. (2) *Kolarian languages of the Circars.*—The Sowrahs and Gadabahs of the Northern Circars have a Kolarian language, which while akin to the Dravidian type, is older than that type viewed morphologically, as may be seen by the stricter application of the agglutinative principle, and the smaller degree of euphonic change. The note further on which gives some account of the Kolarian languages as a family, will show the principal points of agreement and difference between them and the Dravidian. It is not known that there is any real evidence regarding the origin, migrations or early diffusion of the people speaking those languages. It has been stated that they entered India from the north-east; but the grounds of this statement are uncertain. (3) *Alleged connection between the Brahooi language of Beloochistaun and the Dravidian languages.*—Beloochistaun is the country west of the Indus, south of Afghanistaun, and adjoining the Arabian sea. The population which gives its name to the country are the Beloochees, a race of Mahomedan faith and Persian nationality who speak an Indo-European language classed as Iranian. Intermixed however in large numbers with this population, and forming an important part of the state, is the Brahooi tribe, who are probably both by race and language Scythian. The Brahooi tribe are said to have strong Dravidian affinities in the following particulars. The cases of nouns are denoted by postpositions. The gender of nouns is expressed, not by their inflections, but by prefixed separate words. The number of nouns is ordinarily denoted by the use of separate particles of pluralisation, such as 'many,' 'several,' &c. Adjectives are destitute of comparatives and superlatives. The Brahooi pronoun 'thou' is (ní), as in all the Dravidian tongues. Brahooi 'you' (num) accords somewhat with old Dravidian forms. (Nír) is the ordinary Tamul form of plural of the pronoun of the second person, and consequently the second person plural of the verb usually ends in (ír), (eru), (ári), (iri), &c. The same thing occurs in Brahooi; compare (areri) 'ye are,' (arer) 'they are,' with the corresponding Canarese (irruttíri), (irruttáre). In the Dravidian languages the reflexive pronoun 'self' is (tan), or (tán); in Brahooi (ten), similarly used as a pronoun. Nouns form their plural by adding 'k' as in Gond, e.g. (hulí) 'a horse,' plural (hulík), which may be allied with the Tamul plural termination கள். The root of the substantive verb in Brahooi is (ar), in Tamul and Canarese (ir). From four upwards the Brahooi numerals are of Indo-European origin, e.g., (char) 'four,' (panj) 'five,' (shash) 'six,' &c., but the separate numerals 'one,' 'two,' 'three,' are totally distinct, and two of them are identical with the Dravidian: e.g., Brahooi 'two' (irat), compare Canarese (eraḍu), Tamul (iraṭṭu) 'twofold'; Brahooi 'three' (musit), compare Canarese (múru), Teloogoo (múḍu), Tooloo (múji). Among prepositions compare Brahooi (moní)


MAP
Shewing the Dravidian
and
Kolarian Languages
of India & Ceylon
Scale
Inch to the Mile
of nature
Miles
REFERENCE
Dravidian Languages
Kolarian........ Do.......
Madras Presidency
Inland Boundary
Cawnpore
Ganges R.
B E N G A L
KOOR
KORWA
ORAON
CALCUTTA
CENTRAL PROVINCES
Nerbudda R.
Tapty R.
Mahanuddy R.
Chilka L.
Rooshcoolya R.
CHETTERPORE
BOMBAY
NIZAM'S
DOMINIONS
GOND
Vamshadhara R.
VIZAGAPATAM
COCANADA
Godavery R.
TELOOGOO
MASULIPATAM
Kistna R.
KURNOOL
Goondlacumma R.
BELLARY
ANANTAPORE
CUDDAPAH
Pennair R.
NELLORE
CHITTORE
Poolicat L.
MADRAS
Palaur R.
MANGALORE
SALEM
Ponnaiur R.
CUDDALORE
Coleroon R.
Cauvery R.
CALICUT
Ponnany R.
OOTACAMUND
COIMBATORE
TRICHINOPOLY
TAMUL
Periyaur R.
MADURA
Veigay R.
PALAMCOTTAH
Tambrapurny R.
TAMUL
SINGHALESE
30
75
85
20
10

to the Dravidian languages were the Vattezhoot or round writing, and Kolezhoot or upright writing; the two being almost identical, and representing together a style totally distinct from any other Indian alphabet. The Vattezhoot is no longer used, and the Kolezhoot remains only in documents issued by reigning families on the West Coast. These alphabets have been superseded throughout the country by

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'opposite,' with Tamul (munne) 'before.' How far these agreements are not common to other so-called Scythian languages, remains yet to be seen. (4) *Alleged connection between the Scythian tablet at Behistoon in Persia and the Dravidian languages.*—Yet another theory asserts a connection between the Dravidian languages and the archaic language of the second or Scythian cuneiform tablet illustrating the exploits of Darius Hystaspes, on the rock at Behistoon in the extreme west of Persia. Cuneiform inscriptions are usually found in three parallel columns or tablets; being translations of each other in different alphabets and languages, called respectively Persian, Median or Scythian, and Assyrian. The second or Scythian tablet at Behistoon has been pronounced to be a Turanian dialect, and to have the following points of resemblance with the Dravidian languages. There appear the cerebral consonants ṭ, ḍ, and ṇ. The language of the tablets agrees with Tamul in regarding the same consonant as a surd at the beginning of a word, and as a sonant in the middle; and in pronouncing this consonant as a sonant when single, and as a surd when doubled. In the tablets the genitive is formed by suffixing the syllables (na), (nina), or (inna). The analogous Dravidian forms are Teloogoo (ni), Gond (na), and Tamul (in). The dative in the tablets is (ikki) or (ikka). Compare (ninikka) 'to thee' with the Canarese (ninage) and Malayalam (ninakku). The only written numeral on the tablets is (kir) 'one,' with which appears to be connected the indefinite article (ra) or (irra). Compare Tamul (oru) and Kooi (ra). The pronoun of the second person is the same in the tablets as in Dravidian, viz., (ni), the oblique form being (nin). The pronouns on the tablets form their accusative by suffixing (un) (in) or (n); compare the Teloogoo accusative inflection (nu) or (ni), and the Canarese (am) (annu), &c. In the tablets relative participles are found in harmony with Dravidian usage. The negative imperative particle of the tablets is (inni), in Gond (minni). On the other hand it must be observed that the conjugational system of the tablet language differs considerably from that in the Dravidian languages, the latter being simpler. (5) *Resemblances between the Dravidian and Australian languages.*—As an example of resemblances in a quite opposite direction, it may be mentioned that a decided resemblance exists between the Dravidian grammatical elements and those of the aboriginal tribes of Southern and Western Australia. Compare the pronouns 'I,' Dravidian (nán), (yán), (ná), (en), Australian (nga), (ngaii), (ngatsa), (nganya); 'thou' Dravidian (nín), (nin), Australian (ninna), (nginne), (ngintoa), (ningte); 'you,' Dravidian (ním), (nim), (nír), (num), (nívu), Australian (nimedoo), (nura), (niwa), (ngurle). Compare also Tamul (ennei) me, with the Australian (emmo). The grammatical structure of the two families exhibits a general agreement in the following particulars. In the use of postpositions instead of prepositions, and of two forms of the first person plural, one inclusive of the person addressed, the other exclusive; in the formation of inceptive, causative and reflective verbs by the addition of certain particles to the root; and, generally, in the agglutinative structure of words, and in the position of words in a sentence. (6) *Absence of connection between the Dravidian and certain other languages.*—No evidence need be brought forward here to show the long interval separating the Dravidian from the Indo-European or Aryan languages. A technical comparison however between the two sets of language is given in a later note. There has been a greater tendency to trace analogies between the Dravidian and the Papuan or Malay languages in the south-east, the Mongolian languages of Central Asia, and even the Finnic languages of the north. An examination of the evidence shows no ground for any of these theories. The Mongolian analogies in particular are common to the greater number of agglutinative languages; and those languages would embrace the American Indian on the one side of the globe and the Australian on the other. (7) *Historical evidence derived from geographical position combined with other considerations.*—It may be argued that the least civilized branch of the Dravidian-speaking people occupying an extent of country are the hill-men of Rajmahaul as far north as the Ganges; that the most civilized branch, and those who have within a calculable period been in a position to maintain independent dynastic rules of their own, are the Tamuls in the extreme south of the peninsula. Assuming race-movement, those with the highest civilization will be those who have gone in advance or are latest in point of time; while those with the least civilization will be those who are left behind and are oldest in point of time. Hence it may be inferred that the Dravidian race entered Southern India from the north. This argument would avail, if there were not unmistakable remains of wild Dravidian races in Ceylon, as already mentioned in the remarks on the race-question. The very name of the capital of the Yakkhos when conquered by Bengal was Lunkapore. There is a strong Dravidian element even in the Aryanized Singhalese. These southern races balance the northern races of Rajmahaul for the purposes of the argument just mentioned. (8) *Conclusions as to origin, migration, or diffusion of the Dravidian-speaking people.*—There is less evidence on these heads as to the Kolarians than there is as to the Dravidians; therefore nothing can be learnt from analogy on that side. The evidence regarding Brahooi shows that there is a Dravidian element in that language. This may indicate that the Dravidians entered India from the north-west by the Bolan pass, or it may indicate that part of their race extended in that direction from the south. The same remarks apply to the evidence which is stated to exist as to analogies between Dravidian and Sindhee. The alleged Dravidian elements in the tablets at the extreme west of Persia are of great importance, if they can be shown to be in reality specially Dravidian; but that point remains in doubt. They may represent merely Mongolian influence from the north-east of that locality. The argument regarding the Australian dialects is a fair counterpoise to that regarding the Behistoon tablet. On the whole the evidence from language as to the race-movements of the Dravida people is singularly scanty. The solution may be that their race-movement has been at a minimum, and that this country is the original site of the race viewed as a distinct family. (9) *Age of the Dravidian languages.*—As to the age of the Dravidian languages nothing can be asserted, but it is probably very much greater than is at present generally supposed. Tamul literature certainly now extant does not carry the history of the language beyond the ninth or tenth century A.D., but Greek writings trace it to at any rate the beginning of the Christian era. The Greek word for rice, *ὄρυζα*, is the Tamul word அரிசி. Ctesias's name for cinnamon is *κάρπιον*; in Tamul கருவா, in Malayalam കറുപ്പ്. A large stock of primitive Dravidian words is found in the notices of the early Greek and Latin geographers. Examples are as follows. *ὁ πανδίων* and *ἡ χώρα πανδιόνων*, the Paundy king and the country of the Paundies. *ὁ κηροβόθρος* and Pliny's Cœlobothras are the Tamul சேரபுதி. *σῶραι νομαδές—ἀρκατοῦ βασίλειον σῶρα—ὄρθουρα βασίλειον σώρναγος—παραλία σωρητῶν* or *σωριγῶν—παραλία τωριγγῶν* or *σωριγγῶν*. These are various references to the Chola kingdom; in Tamul சோழ, சோழக, சோழய, or சோழிங்க. The Greek *σώρναξ* is the Tamul 'Chola Naick.' *κάρουρα βασίλειον κηροβόθρου*; this is Caroor in Coimbatore, mentioned in Tamul traditions as an ancient capital of the Chera kings. Pliny's 'Modogalingam nomine,' stands for 'moodoo Calinga' or the three Calingas, explained hereafter under the head of History. The following places on the Malabar coast can be identified:—*μουζιρίς* is Mooyeericode now Cranganore; *τύνδις* is Cadaloondy; *νελκύνδα* is Cullada near Quilon. Pliny's 'Cottonara,' the *κοττοναρικῆ* of the *περίπλους*, the district where the best pepper was produced may be identified either with Cadatnaud near Calicut, or with Colatnaud, near Tellicherry; both of which places are celebrated for pepper. *σάνγαρα*, the name given by the author of the Periplus to canoes formed out of a single tree, may be identified with the Malayalam ചങ്ങാടം and the Tooloo ಜಂಗಲ. Pliny's 'Cottora,' the *κοττίαρα* of the Periplus, is probably Cottaur in Travancore. Ptolemy's *κομάρια ἄκρον*, the *κομάρ* and *κομαρεί* of the Periplus, is Cape Comorin, and represents the strict Tamul form குமரி or virgin, that is to say the local goddess. It is doubtful whether the form कुमारी or Coomauree is not a Sanscrit change, Coomar being the original. *οἱ καρέοι*, the Carei of Ptolemy, inhabited the southern portion of Tinnevelly. கரை is the Tamul word for 'coast' or 'shore' and at the present time several portions of the Tinnevelly coast are called கரை and a caste of fishermen


MAP
Shewing Distribution of
Dravidian Alphabets
Down to 1550 A. D.
Scale 1/130th Inch to the Mile
or 1/8236800 of nature
60 30 0 60 120 180 MILES
75°
80°
85°
20°
15°
10°
CALINGA
VENGY
Coringa
Godavery R.
Amrawatty
Kistna R.
Vyjanugger
Pennair R.
Poolicab
Canchepooram
Mavallipore
Palaur R.
CHOLA
CHERA
Coleroon R.
Charitrapoora
Cauvery R.
Caroor
Warriore
Combaconam
Tanjore
Calyaun
Mangalore
Cranganore
Cochin
Madura
PANDYA
Veigay R.
Quilon
Korkay
Tambrapurny R.
LANKA
REFERENCE
Old Vattezhoottoo alphabet
Southern boundary of Hala-Cannada & old Teloogoo alphabets
Western boundary of Grantha & Tamul alphabets
Eastern boundary of Tooloo & Malayalam alphabets

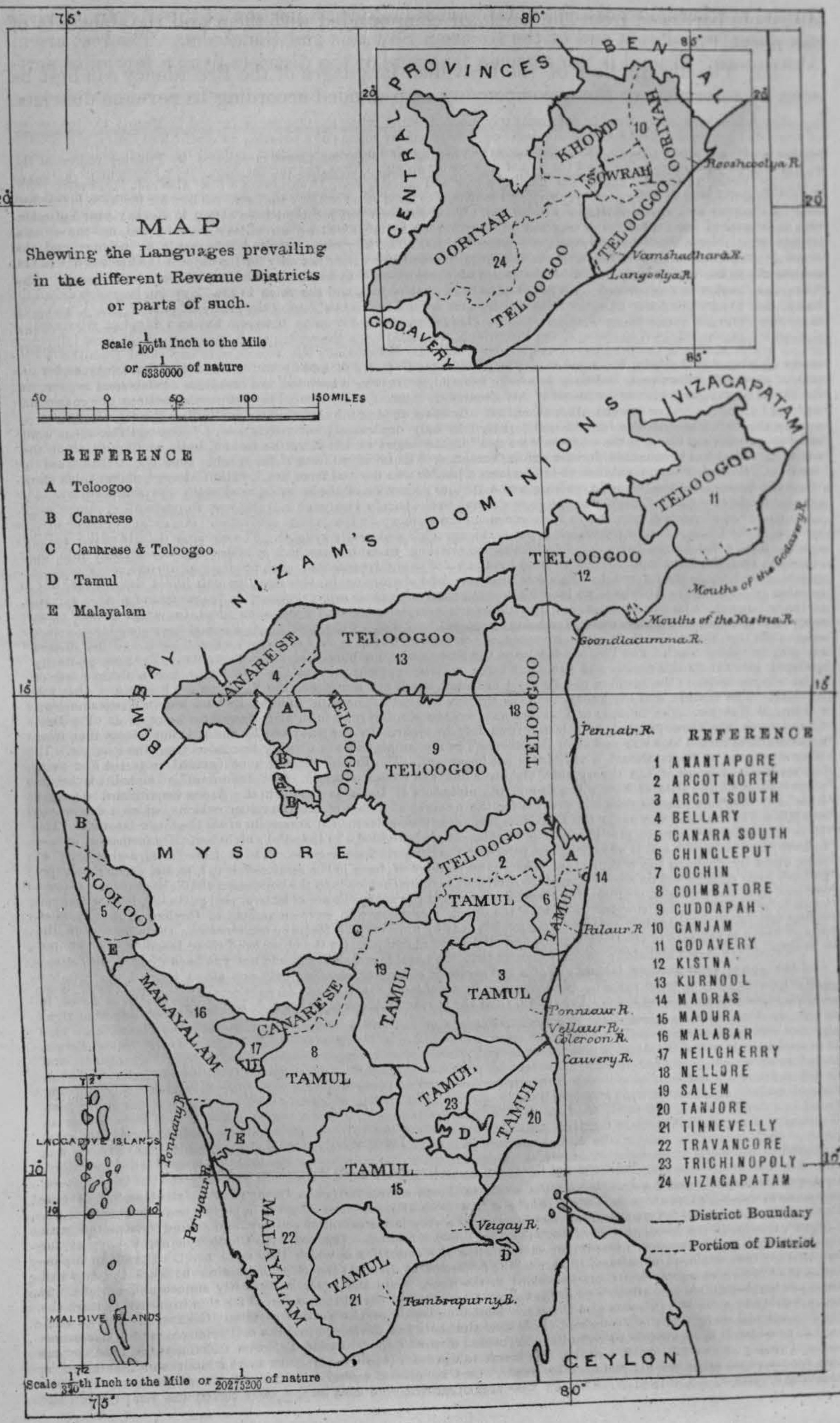
alphabets borrowed from the north, or compounded with them and the alphabets of the north[10].

35. The distribution of the Dravidian languages of the Presidency can best be seen by reference to the accompanying map divided according to revenue districts.

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further north are called கரையார் 'coast-people.' Portions of two other names mentioned by Ptolemy represent the Tamul கரை, viz., καλαικαρίας, and περιγκαρεῖ. βηττιγὼ is Ptolemy's name for the mountain range in which the σωλήν or Tambrapurny took its rise. This mountain is Agastya's hill, called in Tamul பொதிகை. κόλχοι ἐμπόριον, mentioned both by Ptolemy and by the author of the Periplus, as the head-quarters of the pearl-fishery, is Korkay near Tuticorin. κῶρυ is described by Ptolemy in one place as an island in the Argaric Gulf, or Palk's Straits, and in another as a promontory. These are the island and point respectively of Rameswaram. The bay between Point Calimere and the island is called 'Rama's bow' and each end is called in Tamul கோடி, the 'tip' of a bow. This word will not unnaturally take the form κῶρυ. For a similar change compare the English 'crore' for the original கோடி. The Portuguese called the same point of land 'Cape Ramanacoru.' κῶλις found in Strabo and Dionysius Periegetes, Pomponius Mela's Colis, and Pliny's Coliacum, changed by Ptolemy into κῶρυ, are identical with the above-mentioned κῶρυ, the different names being various transliterations of the Tamul கோடி. Clemens Alexandrinus' rendering of the Sanscrit श्रमण by σεμνοί accords better with the Tamul form சமணன் than with the Sanscrit original. Very many names of places in Southern India mentioned by Ptolemy end in ουρ or ουρα 'town.' The following are examples :— σαλούρ, κορέουρα, ποδοπέρουρα, παλούρα, ἀρεμβούρ, μαγούρ, μαντιττούρ, κορινδιούρ, and καρόυρα. ποδοπέρουρα represents the Tamul புதுப்பேரூர் 'new great town,' and παλούρα, பாலூர் 'milk-town.' Here the conjunctions of consonants, 'nt,' 'nd,' 'mb,' 'tt,' have the Tamulian character. However it is needless to multiply these examples. Suffice it to say that the Greek writers show the Tamul language in their day exactly what it is now. The oldest Dravidian word found in any written record is the word for 'peacock' in the Hebrew text of the Books of Kings and Chronicles, in the lists of the articles of merchandise brought from Tarsish or Ophir in Solomon's ship, about 1000 B.C. The word is 'tooki.' The ancient Tamul equivalent is தோகை 'the bird with a feathered tail.' The Hebrew 'ahalim' indicating a fragrant tree is considered identical with the Tamul அகில். As to the date of the separation of the primitive speech into the Dravidian dialects nothing definite can be said. The words which are common to all dialects indicate the oldest vocabulary. (10) *The influence of Sanscrit on the Dravidian languages.*—Sanscrit was introduced into Southern India by the Aryans, who entered that country at an indeterminate date before the Christian era. The Indic branch of the Aryans were the last of the primitive stock to leave the original Aryan home in Central Asia. This fact is deduced from the eclectic character of the Sanscrit language and grammar, which combines features which are found in the other Aryan branch languages singly only. The history of Sanscrit can be divided into two principal periods, the first showing the language as contained in the Vedic hymns; the second showing the so-called classical Sanscrit, in which the epics, the law-books, and the later literature are written. In the language of the Vedic hymns, the grammar is not fully developed, and there are many forms which afterwards became obsolete. In the vocabulary words have changed meanings between the two periods, while retaining their form. Sanscrit ceased to be generally spoken long before the present era, and its place was then taken by various pracrits or dialects derived from it. These in their turn gradually developed into the fixed languages of modern Hindee, Mahrattee, Bengalee, and other varieties spoken in the north of India. In the south of India there was no fusion, and neither Sanscrit nor a Sanscritic language survived. After the Dravidians were visited by the Aryans, they borrowed words from the new language to express ideas hitherto unknown to them. But as mentioned in the text, their original language was neither radically altered nor superseded. The Dravidian tongue has remained, and the Aryan tongue has disappeared. Words derived by the Dravidian languages from Sanscrit are arranged by native scholars in classes according to the degree in which they have been corrupted, or with reference to the medium through which they have been derived. True Dravidian words again are placed in a quite separate class by themselves, and designated by the epithets 'national words,' and 'pure words.' The real connection between Sanscrit and Dravidian has always been well understood by the native authorities. In the uncultivated languages of the Dravidian family, Sanscrit words are very rarely employed. Even those languages which use such derivatives most could really dispense with them altogether, and they are looked upon rather as luxuries than as necessaries. The ancient or classical Shen-Tamul differs from the colloquial dialect chiefly in the care with which it has rejected the use of Sanscrit derivatives. A Tamul poetical composition is regarded in accordance with good taste, and worthy of being called classical, in proportion to its freedom from Sanscrit. In studied prose compositions and in the ordinary speech of the Brahmins and the more learned Tamulians, Sanscrit words are introduced; chiefly those which express abstract ideas of philosophy, science, and religion. In the other Dravidian languages, the amount of Sanscrit employed is larger, the literature of those languages having chiefly been cultivated by Brahmins. (11) *Reflex action of the Dravidian languages on Sanscrit.*—In support of the view that there has been such action, long lists of words have been quoted, the roots of which are common to the Sanscrit and Dravidian dictionaries. It must first be shown that the same roots are not to be found in other Turanian languages besides the Dravidian, before any argument of a historical nature can be drawn.

[10] SKETCH HISTORY OF DRAVIDIAN WRITTEN CHARACTERS—*The two Asoca alphabets.*—The earliest written documents that have been discovered in India are the proclamations of the Boodhist king Priyadarshee or Asoca, in which occur two different characters, styled by archæologists northern and southern. The northern reads from right to left; its derivation is uncertain, but it is Semitic and seems based on an alphabet cognate with the Phœnician. This alphabet was originally confined to Ariana, or the countries lying to the west of the Indus between India and Persia. It is used in only one of the Asoca inscriptions, that at Shahbazgarhy, forty miles from Peshawar in Afghanistaun, and therefore need not be noticed further. The southern Asoca alphabet is what is generally called the Indian alphabet. It differs from the northern in two important particulars; first in being read from left to right, and secondly in being formed exclusively of either rigid straight lines or of sections of circles, owing to which peculiarity it has never been found in a cursive form. It has been discovered at various places in India north of a line drawn from Girnar in Goozerat to Jowgada Nowgaum in Ganjam, but not to the south of it. (2) *Probable existence of Indian written characters prior to that time.*—The date of the Asoca inscriptions is about 250 B.C., but it seems probable that writing was practised in Northern India before that period. Nearchus (B.C. 325) states that the Brahmin laws were not written; and Megasthenes, a few years later (302 B.C.) says that they had no written book, and that they did not know letters. On the other hand Nearchus states that the Indians wrote some sort of letters on a cotton cloth or paper; and Megasthenes mentions milestones at a distance of 10 stadia from one another, on which probably there were numerical signs. During several centuries before that time the natives of India had had opportunities of becoming acquainted with different systems of writing, then current in the West and in Persia. The Phœnicians who undertook voyages for the Hebrew King Solomon are known to have come to Southern India about 1000 B.C., and they had an alphabet derived from Egyptian signs as early as the nineteenth century B.C. Again the Persians about 500 B.C. conquered India, or at least the northern part. Still earlier conquests by Semiramis and Sesostris are mentioned, but perhaps these are mythical. At any rate before the conquests of Alexander, the natives of India had opportunities to learn the art of writing from others. It seems on the whole most improbable that the Asoca writing was the first effort of its kind. (3) *Principles of the formation of an alphabet.*—To trace the history of the southern Asoca or Indian character, it is necessary to consider first the general history of the derivation of an alphabet from hieroglyphics. The first and most obvious mode of visibly expressing thought is by the representation of actual objects. To make it understood, for example, that one man had killed another, the narrator would draw the figure of a dead man lying on the ground and of another standing by him with a weapon in his hand. This kind of writing was used by the early Egyptians, and probably also


MAP
Shewing the Languages prevailing
in the different Revenue Districts
or parts of such.
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
50 0 50 100 150 MILES
REFERENCE
A Teloogoo
B Canarese
C Canarese & Teloogoo
D Tamul
E Malayalam
REFERENCE
1 ANANTAPORE
2 ARCOT NORTH
3 ARCOT SOUTH
4 BELLARY
5 CANARA SOUTH
6 CHINGLEPUT
7 COCHIN
8 COIMBATORE
9 CUDDAPAH
10 GANJAM
11 GODAVERY
12 KISTNA
13 KURNOOL
14 MADRAS
15 MADURA
16 MALABAR
17 NEILGHERRY
18 NELLORE
19 SALEM
20 TANJORE
21 TINNEVELLY
22 TRAVANCORE
23 TRICHINOPOLY
24 VIZAGAPATAM
District Boundary
Portion of District
CENTRAL PROVINCES
BENGAL
KHOND
SOWRAH
OORIYAH
TELOOGOO
GODAVERY
Rooshcoolya R.
Vamshadhara R.
Langoolya R.
NIZAM'S DOMINIONS
VIZACAPATAM
BOMBAY
CANARESE
MYSORE
TOOLOO
MALAYALAM
TAMUL
CEYLON
LACCADIVE ISLANDS
MALDIVE ISLANDS
Mouths of the Godavery R.
Mouths of the Kistna R.
Goondlacumma R.
Pennair R.
Palaur R.
Ponnaur R.
Vellaur R.
Coleroon R.
Cauvery R.
Vegay R.
Tambrapurny R.
Ponnany R.
Periyaur R.
Scale 1/320th Inch to the Mile or 1/20275200 of nature

In the northernmost district of Ganjam is included a portion of the Aryan Ooriyah speaking population and of the Kolarian Sowrahs and Gadabahs. The rest are all Dravidians. Tamul is the common language of the districts from a few miles north

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by other ancient nations. Even in comparatively modern times, when the Spaniards landed in Mexico, the inhabitants of the coast conveyed intelligence of the event to Montezuma by means of a painting on cloth. The difficulty and inconvenience of this process led to the substitution of the symbolic or emblematic method, by which abbreviations or characteristic parts were introduced instead of the entire object. Thus, the ancient Egyptians represented a siege by a scaling ladder, a battle by two hands holding a bow and shield, &c. At this stage a few abstract ideas were represented, that being effected by portraying objects supposed to have some analogy to them. Thus for instance ingratitude was represented by a viper, providence by an eye. The two steps just mentioned are called ideographic hieroglyphics. The next step in written language was the introduction of syllabic writing, an endeavour to represent the syllabic sounds of the voice itself by appropriate representations. The Egyptians attained this result by taking a selected number of their pictorial symbols, and causing these to stand thereafter not only for the objects themselves but for the sounds which the voice had attached to the names of those objects in whatever relations those sounds might occur. Thus the hand was represented by a rough picture of that object, and the voice in the Egyptian language called the hand 'tat'; therefore the hand symbol stood thereafter for the sound 'ta' (being the principal part of 'tat'), whenever it entered into the composition of other words. This process was the union between the two ideas of representing that which presented itself to the eye, and that which proceeded from the mouth; and forms one of the most important stages in the history of the progress of the human intellect. Occasionally the vowels were separated from the consonants, as when 'mu,' a hole, was represented by a 'boatstand' (m), followed by an 'outstretched arm' (u); and if this plan of separating the vowels had been generally adopted, it must soon have led to a complete alphabetical system, but the Egyptians stopped just on the brink of this discovery. Almost every symbol represented a consonant or consonants with an inherent vowel or vowels. It was in fact a syllabic writing; by syllabic understanding the representation by one symbol of monosyllables for the most part, and only occasionally of polysyllables. The syllabic method was intermixed with the ideographic. There were two further stages in the Egyptian system, both tending to alphabetic writing. What has been called hieratic writing consisted of an abridged form of the syllabic symbols, suited for cursive purposes. Some have supposed that the Phœnician alphabet was derived from the Egyptian hieroglyphics at this stage. What has been called the demotic writing was a further reduction of the hieratic, used with the same object. The syllabic mode of writing, though a great improvement on the purely ideographic, is still very imperfect and cumbersome. The number of characters required in it overburdens the memory and occasions confusion. An extant example of this system is the Chinese language, which is partly ideographic and partly syllabic. The obvious defects of the syllabic system finally led to the invention of alphabetical writing, in which method syllables are decomposed into their elements, and the few simple sounds emitted by the voice being represented each by its appropriate mark or letter, syllables and words are formed by their combination. The characters in this case, though lineal descendants of the syllabic symbols as to shape, have no longer any connection with their original origin, as fragments of picture symbols, and may be said to be quite arbitrary. By such means every conception, material or ideal, to which human speech can attach a sound or name, is capable of being translated into written character. (4) *Earliest known alphabets.*—Some assert that the Egyptians themselves invented the alphabet, but it is only true that among their syllabic symbols some were alphabetical. The Phœnicians were the first to adopt a purely alphabetic system. The general voice of antiquity gives them this credit, and the facts agree with the rumour. From the Phœnician, five alphabets are said to have been derived; the Semitic, the Pelasgic or Greek, the West European, the Northern or Runic, and the Indo-Arabian. The Semitic, like the Phœnician, was written and read from right to left; its best known representation is the square Hebrew. The Pelasgic of Cadmus was written similarly at first, then βουστροφηδὸν or as an ox ploughs first one way and then another, and lastly from left to right. In the βαυστροφηδὸν method the letters themselves appeared first turned one way and then the other. The Roman alphabet is directly descended from the Pelasgic. The West European of Spain, though a variety, is not important. The Runic is stated to be derived from the Phœnician, but mainly in support of the theory that alphabets had one common origin. The Indo-Arabian alphabet is held to represent the Himyarite of South Arabia and the alphabets of India as shown in the Asoca inscriptions. It will be seen later that this scheme does not provide for the original alphabet of the Dravidian nations, which remains thus unaffiliated in the same way as are the Dravidian languages themselves. (5) *Formation of the Southern Asoca alphabet.*—It is not necessary here to give the details of this, otherwise called the Indo-Pali, alphabet. Its formation appears to have been scientific, and it was the direct parent of the Sanscrit Devanagaree. The aspirated letters were formed in most cases by doubling the plain letter. There is an analogy of form in the semi-vowels r, l, and y, which shows them to have been constructed on some principle. A critical examination leads to the conclusion that the characters may be reduced to seven elements, representing respectively each of the seven classes of letters, viz., gutturals, labials, linguals, dentals, semi-vowels, and vowels. Iambulus the Greek merchant who gave an account of Ceylon, said that in the Indian writing there were but seven characters, but that by four varying forms or combinations these became twenty-eight. That is the case in the Devanagaree and all derived alphabets. On the other hand there is only one r and one s in the southern Asoca alphabet; which indicates that the nasals and sibilants had not yet been divided into classes. And the vowel signs in these tablets are of a rudimentary character, showing only one stage beyond the primitive system where there were no vowels. (6) *Derivation thence of later South Indian Alphabets.*—The derivation of the South Indian alphabets other than the old Dravidian, from the southern Asoca alphabet may be tabulated thus:—

Southern Asoca character.
|
Cave.
|
Chalookya — Vengy — Chera
|
Teloogoo and Canarese. (from Chalookya and Vengy)
Chera
|
Intermediate stages
|
Granta, Tamul, Malayalam, and Tooloo.

(7) *The Cave.*—The first development of the southern Asoca character is the Cave, used in the inscriptions found in caves in various parts of India. This chiefly differs from the southern Asoca in a preference for angular forms, where that has curves. This character was in use over a very large extent of country, and accordingly presents some slight varieties in the forms of the letters. (8) *The Teloogoo branch.*—Next come the Chalookya and Vengy, developments of the Cave character, named respectively after the countries in which they were used. The Chalookya may be divided into western and eastern, similar to the dynasties so divided; the chief distinction between the two being that the former character has a marked slope to the right, while the latter is distinctly square and upright. The Vengy alphabet differs very slightly from the Cave. A transitional period then occurred for this branch of the alphabets from 100–1300 A.D., and this was also the most flourishing period of the North Dravidian literatures. By the end of the period just mentioned the Vengy and Chalookya alphabets had developed into the old Teloogoo and Haleycannada, between which it is impossible to establish any radical distinction. The joint Teloogoo and Canarese alphabet dates from the end of the thirteenth century. As it was in use from the Canara coast to the mouths of the Kistna and Godavery, there occur several varieties or hands. One important variation is in the form of the letter 't.' About 1300 this letter appears in inscriptions on the West Coast with a double loop, ಠ, whereas on the East Coast and in

of Madras to the extreme south of the eastern division of the peninsula[11]. The Teloogoo language is commonly spoken by the people of the Northern Circars, and in a portion of the Nizam's country, Kurnool, Cuddapah, part of North Arcot,

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the central territory between the two, the form ತ with a single loop is preferred. In the modern Teloogoo and Canarese alphabets, this is exactly reversed. A general difference between the modern Teloogoo and Canarese characters and the older characters is, that in the former the vowels attached to consonants are relatively of small size compared with the body of the consonants, while in the latter character they are so much larger as almost to be out of proportion. The modern Canarese is especially distinguished from the modern Teloogoo alphabet in the method of marking the long vowels i, e, and o, by the addition of a separate sign (—e) following the consonant with the usual short vowel affixed; this is wanting in Teloogoo. (9) *The Tamul branch.*—The other principal development of the Cave character, which finally culminated in Tamul, &c., began with the Chera, which was used in the kingdom of that name during the early centuries A.D. This alphabet changed very little during a period of four centuries. Two varieties may be distinguished, the first used in what is now Mysore and Coorg; and the second used in Tondeinaud (the neighbourhood of Madras), which was a feudatory kingdom of the Chera kingdom till about the end of the seventh century, when it fell under the Cholas. The earliest unquestionable inscription in this character is about 467 A.D. After passing through some intermediate processes, this character developed into the Granta, modern Tamul, Malayalam and Tooloo alphabets. The North Indian civilization, when it came as far south as the Tamul country, found the people already in possession of the art of writing and of a cultivated language. In consequence of this, Sanscrit did not regulate the Tamul phonetic system, and merely held the place of a foreign learned language; the knowledge of it was confined almost exclusively to the Brahmins, and the Granta alphabet has been nothing more than that which the Tamulian Brahmins used and still use for writing their sacred books in a dead language. The oldest known Granta manuscript is of about 1600 A.D. There are at present two distinct Granta hands, the 'square' or Brahminical hand, and the 'round' or Jain hand, which has preserved the original features of the early Granta better than the other. The former is used chiefly in Tanjore, the latter by the Jains of Arcot and Madras. The Tamul alphabet originated in a Brahminical adaptation of these Granta letters to the Tamul system as evidenced by the old indigenous Vattezhoot alphabet. A compromise was effected between the two systems of alphabet; and the last four signs of the Vattezhoot, ழ, ள, ற, and ன were directly borrowed, the Granta having nothing similar. Of all the Indian languages modern Tamul has the most imperfect alphabet, this consisting of 12 vowels and 18 consonants only. Compared with the Devanagaree Sanscrit alphabet, it is deficient in the vowels ri, rí, and lri, though it possesses a short e and o, which the Devanagaree has not; it has only one sound for k, kh, g, gh; for ch, chh, j, jh; for ṭ, ṭh, ḍ, ḍh; for t, th, d, dh; and for p, ph, b, bh. It is destitute moreover of the Sanscrit aspirate h, of the sibilants s, ś, and sh, and of anooswaura and visarga. A very near approach to the modern Tamul character was reached about 1350 A.D. The last letter to finally assume the modern form was [illegible] about 1500 A.D. A great change has occurred in the present century owing to the increased use of writing and to the arbitrary alterations of the type-founders. The famous Jesuit Beschi (1704–1744) was the author of a great improvement in modern Tamul orthography, the distinction between the long and short e and o. This he effected by curving the top of the ெ used to express the short 'e' thus ே, the same sign serving in the compound for o to express the long o. In the eighth century the distinction was shown by a dot over e and o. The angular form of the Tamul character is owing to the practice of writing on cadjan leaf with the style resting on the end of the left thumb-nail; in the same manner the roundness of the Teloogoo characters is to be attributed to the practice of resting the style on the left side of the thumb. Tamul is remarkable among the South Indian languages for using a great number of abbreviations for common words, such as month, year, &c. These appear in common use at the beginning of the sixteenth century. A list of such abbreviations will be found in Volume III. The Tooloo-Malayalam alphabet is a variety of the Granta, and like it was originally applied only to the writing of Sanscrit. It was probably imported into the south-west coast about the eighth or ninth century A.D. Down to about 1600 A.D., the Tooloo and Malayalam alphabets are identical and hardly differ from the modern Tooloo hand. (10) *The Vattezhoot character.*—In contradistinction to all the above-named South Indian alphabets is the Vattezhoot or original Tamul alphabet once used in all the peninsula south of Tanjore, and also in South Malabar and Travancore, and still used in these districts to a limited extent and in a modern form. The name means 'round hand' as opposed to Kolezhoot or 'sceptre-hand'; but this latter is only a variety of the same class, and the word Vattezhoot is used generically for both. The Vattezhoot may be called the Paundy character, as its use extended over the whole of that kingdom at its best period. It was supplanted by the modern Tamul character only about the eleventh century under the Cholas. In Malabar it remained in very general use up to the end of the seventeenth century, and since then in the form of the Kolezhoot it is the character in which the Hindoo sovereigns themselves have had their grants drawn up. The Moplahs of the neighbourhood of Tellicherry and in the islands used this character till quite recently, though it has now been superseded by a modified Arabic character. It still exists in the Maldives attached to Ceylon. The Tolgauppiam, Cooral, and all the other early Tamul works were written in this character. The dissimilarity between the phonetic values of many of the corresponding letters in the two alphabets makes it impossible that the Vattezhoot should have been derived from the southern Asoca. A peculiarity of the Vattezhoot as compared with other Indian alphabets consists in writing on the same line and not perpendicularly consonants which follow one another without the intervention of a vowel. The consonants again are modified when the vowel sign is added. Of all the probable primitive alphabets with which a comparison of the Vattezhoot is possible, the Sassanian (226–632 A.D.) found in Persian inscriptions seems to present most points of resemblance. The number of letters in both agrees. The alphabet may have been introduced by sea to Southern India, but its origin is wrapped in mystery. (11) *The Nundinagaree character.*—The South Indian form of the Nagaree character, as current in modern times, usually goes by the name of Nundinagaree, and is derived from the North Indian Devanagaree of about the eleventh century. The Devanagaree itself is derived directly from the Southern Asoca character, through the Goopta. Its introduction into the south is probably due to emigrants from the north. The name may be derived from 'nagara' a town, and mean the 'writing used in towns.' At the beginning of the sixteenth century it was the official character of the Vijianugger kingdom. At present it is very illegible, having deteriorated owing to the practice of writing on palm-leaves. (12) *The Baulbodh character.*—This, which is another form of the Nagaree, was introduced into Southern India by the Mahratta conquest of Tanjore in the latter part of the seventeenth century, and was then chiefly used in Tanjore, where indeed it is still current. (13) *Writing Materials.*—Palm-leaves have always been and still are the chief material on which to write throughout India, Ceylon, Burmah, and the Malay Archipelago; the species of trees employed being the palmyra or 'Borassus flabelliformis,' the talipat or 'Corypha umbraculifera' and 'C. taliera.' These leaves, known by the name of 'cadjan' or 'olay,' are used in two ways. Either the letters are scratched on them with a style, and the lines thus formed are afterwards made clear by being filled in with some black matter; or else the leaves are written on with a pen and ink. The latter method is peculiar to the north of India. The use of palm-leaves to write on is of considerable age in India. It is repeatedly mentioned by Hwen Thsang (seventh century A.D.), and all early European travellers in the East refer to its use. The oldest Indian manuscripts known at present are written in ink on palm-leaves; the date of the oldest one is 1132 A.D. Palm-leaf books are never much beyond two feet in length and two inches in breadth. They are said to last from 100 to 500 years. Metal in plates is also used for books, but examples of this are very rare. This mode of writing is also mentioned by Hwen Thsang. Other substances used for this purpose are boards of wood (chiefly in Burmah), and prepared cloth, which is the earliest writing material in India of which there is trustworthy historical mention. It is described by Nearchus (325 B.C.), who says that the Brahmins wrote ἐν σινδόσι λίαν κεκροτημέναις. At the present time the Canarese use cloth covered with a paste mixed with powdered charcoal, and written on with chalk; so that the letters are white on a black ground. The use of paper in India seems to be subsequent to the eleventh century A.D., but up to quite recent

Nellore and some parts of Bellary. Canarese is spoken in certain portions of the Bellary, Coimbatore, Salem, and South Canara districts. Malayalam is the language of the Native States of Travancore, Cochin, and the Malabar district. Tooloo is spoken in a limited portion of the South Canara district[12]. The hill tribes of

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times it was unknown in Southern India, and is even now regarded by rigid Hindoos as unclean. Its foreign origin is apparent from its name, which in all the dialects of India is some more or less corrupt form of 'kaugaz,' the name by which it was known to the Arabs. Grants and public documents have been written on stone, metal-plates (copper, gold or silver), and palm-leaves. Ink has been introduced into Southern India in quite recent times and apparently by the Mahrattas; it is made of lac and is almost indelible. The pen used in Southern India for writing Nagaree on paper is made of the common reed.

[11] NATIVE AUTHORITIES ON THE BOUNDARIES OF THE TAMUL LANGUAGE.—Pavanandy in the Nunnool says:— குணகடல்குமரிகுடகம்வேங்கடம்எனுநான்கெல்லையினிருந்தமிழ்க்கடலுள். "The east sea, Coomary, Coorg, Vengadam. These are the four boundaries in the great Tamul sea." Coomary is Cape Comorin. Vengadam is Tripatty. Within these boundaries were included the Tondeimandalam, Nadoonaud, Choladesham, Pandiyadesham, Cheradesham, Conganadesham; and the whole of these being taken together, formed the real Dravida country.

[12] PARTICULARS OF EXISTING DRAVIDIAN LANGUAGES IN THE PLAINS OF THE PRESIDENCY—*Tamul.*—Tamul, called sometimes Malabar, is the most southern of the Dravidian family. The limits of the area where Tamul is spoken are well defined. It prevails from a few miles north of the city of Madras to the extreme south of the eastern side of the peninsula, throughout the plains of the Carnatic or country below the ghauts, from Poolicat to Cape Comorin, and from the ghauts to the Bay of Bengal. It is also spoken in the southern portion of the independent kingdom of Travancore on the western side of the ghauts, from Cape Comorin to the neighbourhood of Trivandrum, and in the northern parts of the island of Ceylon as far as a line drawn across the island from Ghilaw to Batticaloa. It even extends as an occasional language beyond this line; the laborers in the coffee-plantations in the Candy hills, who are immigrants rather than settlers, speak Tamul. The majority of the emigrants from the peninsula into British Burmah and the Straits Settlements, known as Klings or Calingas, are Tamul-speakers; so also are a large proportion of the emigrant coolies who proceed to the Mauritius and West Indies. The total number of Tamul-speaking people has been estimated at fourteen-and-a-half millions. It is the oldest, richest, and most highly organized of the Dravidian languages; plentiful in vocabulary and cultivated from a very remote period. Shen Tamul is the literary artificial dialect, used for poetry. The artificial features of this dialect are probably without a parallel in any language. Codoon Tamul is the standard, used for ordinary purposes. A very considerable literature exists in this language, among which are native grammatical works. The study of Sanscrit, and the Hindoo culture, have left their mark on the language. The principal dialect of Tamul is the Yerkala. Yerkala is spoken by a very primitive tribe of that name who are found in nine Teloogoo districts. The language is unintelligible to the Teloogoo people. It has been considerably mixed with Teloogoo and Canarese; but in its structure it is Tamul. The Yerkalas understand Tamul when spoken, and are no doubt a Tamul tribe. Next in importance are two dialects spoken by a scanty population of hill-men in the Neilgherries, the Iroolar and Coorumbar. There is a Tamul dialect spoken by the Malasar, hill-men on the northern slopes of the Anamullay range. The ordinary dialect of Tanjore, and the dialect of the Brahmins of Tanjore, have also been indicated as separate. The Vellaular of the Shevaroy Hills speak a Tamul patois. The ancient Tamul had an alphabet of its own, the Vattezhoot, the origin of which is quite unknown. The modern Tamul employs an alphabet which is also in its present form very distinctive, but is derived from the well-known Southern Asoca or Indian. It is singularly imperfect, considering the copiousness of the vocabulary which it has to represent. The Granta alphabet is used by Tamul Brahmins for Sanscrit manuscripts; this was the precursor of the Tamul in its derivation from the Asoca. (2) *Teloogoo.*—The Teloogoo or Telinga language ranks next to Tamul in respect of culture and glossarial copiousness, and surpasses it in euphony. It used to be called the Gentoo language, from the Portuguese indicating 'gentile;' but this term has disappeared. It is spoken by the people of the Northern Circars, Kurnool, Cuddapah, part of North Arcot, Nellore, and some parts of Bellary in the Madras province, and in a portion of the Nizam's territory and the Central Provinces. It ranges from Poolicat where it meets Tamul, to Chicacole where it is succeeded by Ooriyah. Inland it extends as far as the eastern boundary of the Mahratta country and Mysore. The district thus described was called Telingana by the Mahomedans. A large portion of Teloogoo-speakers appear within the area occupied by Tamul, and there are some in the independent territory of Mysore. On the West Coast alone they are entirely absent. The whole number has been estimated at fifteen millions and-a-half, but calculations respecting the Nizam's territory are uncertain. The language adjoins various others of widely different type, the Ooriyah and Mahrattee of the Aryan or pracritic family, the Gond and Khond primitive specimens of the Dravidian type, and the Sowrah of the so-called Kolarian family; and hence it has in those localities been exposed to considerable corruptions. Debased dialects of Teloogoo are spoken in Bustar of the Central Provinces, in Jeypore, and by a few wandering East Coast tribes. Yanaudy is a corrupt Teloogoo spoken by a small half-savage tribe in Nellore, Cuddapah, and Kurnool. Chentsoo is allied to Teloogoo and is spoken by a few tribes in the Godavery, Cuddapah and Kurnool districts. Teloogoo has a peculiar but complete character, a variation of the Southern Asoca, but not in the same line of descent as the Tamul. It has borrowed very many words from the Sanscrit, and a considerable literature. There is no ancient Teloogoo language, as in the case of Tamul and Canarese. (3) *Canarese.*—The true centre of the Canarese-speaking people is Mysore. The historic Carnatic or Canarese-speaking country, that is to say the original province of the Beejapore and Golcondah rulers and the small kingdom of Bednore, was for the most part on the Deccan plateau 'above ghaut.' It included below ghaut parts of the districts now known as North and South Canara, which last is the sole geographical survival of the name, and part of Coimbatore. As the conquests of its rulers were pursued further south the newly acquired territory was also called Carnatic, but was specially known as Carnatic Payeen Ghaut (below ghaut) to distinguish it from Carnatic Balaghaut (above ghaut) or the true Carnatic. In the latter half of the eighteenth century, when the rulers of the country frequently changed, the country itself was so frequently arranged and rearranged that the real origin of the name disappeared from view. The true Carnatic is divided among Mysore, South Bombay, South Hyderabad and fragments of Madras districts, while the name Canara is given to a district in which Canarese is the mother tongue of only about one-fifth of its inhabitants, and the term Carnatic is applied to a Tamul country on the East Coast where scarcely any Canarese at all is spoken. The exact boundaries of the Canarese language may be designated by a line drawn from Sadaushivaghad on the Malabar Coast to the westward of Dharwar, Belgaum, and Hookery, through Caugal and Karandwar, passing between Keligaum and Pandegaum through Brahmapooree on the Bheema and Sholapore, and thence east to the neighbourhood of Beedar. From Sadaushivaghad following the southern boundary of Sondah to the top of the Western Ghauts, it comprehends the whole of Mysore and Coimbatore and the line of the Eastern Ghauts. In certain portions of the area occupied by Canarese there is an intermixture of a Mahratta-speaking population. Regarded from the point of view of districts, the language occupies no Madras district exclusively. It is largely spoken in the western talooks of Bellary, in the northern talooks of South Canara, in the Collegaul talook of Coimbatore; and it is the principal language of the Neilgherries. In these districts it is a local language. In other districts, such as Madura, Trichinopoly and Tinnevelly, it is spoken by castes who have migrated from the Carnautacadesha. There is an ancient Canarese language, analogous to ancient Tamul, and nearly as artificial. The dialect of the Badagahs or Burghers, a numerous Hindoo tribe in the Neilgherries, who have migrated from the plains and carried their agriculture with them from the plains, is a very ancient one. Many of their songs have been published in English. The Canarese character is in all essentials identical with that of the Teloogoo, but there is an archaic character for Sanscrit inscriptions found over a large area, called 'Haleycannada.' The number of Canarese-speaking people is estimated at nine millions and-a-quarter in the provinces of Madras

certain districts have dialects of their own, but of a strictly Dravidian type[13]. In the whole Presidency there are about 12,388,000 persons who speak the Tamul language; 12,105,000 who speak Teloogoo; 1,300,555 who speak Canarese; 2,370,000 who speak Malayalam; 427,000 who speak Tooloo; 205,000 who speak

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and Bombay, and the independent territory of the Nizam and Mysore. (4) *Malayalam.*—Malayalam is the language of the south-west of the Presidency and is better localized than any of the three languages just mentioned. It is spoken in the south of South Canara, throughout Malabar, in Cochin, Travancore, and hardly at all elsewhere. It is the only indigenous language in these countries. The Tamul and Canarese speaking people of Malabar are all strangers to that country. The area of the language extends along the Malabar Coast on the western side of the ghauts or Malaya range of mountains, from Chundragherry some 30 miles south of Mangalore, where it supersedes Canarese and Tooloo, to Trivandrum. The Malayalam-speaking population amounts to about four millions in the province of Madras, and the independent states of Cochin and Travancore. Those who speak it are chiefly Hindoos, but there is a proportion of Mahomedans, Jews, and Christians. The language is peculiarly related to Tamul, of which it is an ancient offshoot, but much altered. The ancient Cochin and Travancore inscriptions prove the substantial identity of old Malayalam with old Tamul. The date of these documents is probably not later than the ninth century A.D. nor earlier than the seventh. Though words and forms which are peculiar to Malayalam may be detected in them, the general style of the language in which they are written is Tamul, the inflections of the nouns and verbs are Tamul, and the idiom is mostly Tamul. The history of the Malayalam language commences (if these few inscriptions on copper and stone be excepted) with the Ramacharitram, the oldest Malayalam poem still in existence. Composed as it was before the introduction of the Sanscrit alphabet, it is deserving of the particular attention of the scholar, as it exhibits the earliest phase of the language, probably very many centuries before the arrival of the Portuguese. About two centuries before that event, that is to say after the thirteenth century, the personal terminations of the verbs, till then a feature of Malayalam as it is of the other Dravidian languages, began gradually to be dropped in the spoken language, and by the end of the fifteenth century these terminations had wholly gone out of use except by the inhabitants of the Laccadives and the Moplahs of South Canara, in whose speech remains of them are still found. The proportion of Sanscrit words is greater in Malayalam than in any other of the Dravidian languages. This large influx of the Sanscrit element probably does not date earlier than the seventeenth century, when Toonchat Ezhoottatchan, the most famous of the Malayalam poets, gave to the world his versions of the Sanscrit epics and of many of the Pooranas, at the same time introducing the Granta alphabet in place of the Vattezhoot, the old Tamulic character once generally in use. Upon the Moplahs, who as Mahomedans had religious objections to reading Hindoo mythological poems, this influence had no effect, and hence they speak a less Sanscritized Malayalam than do the ;Hindoos, and, where they have not adopted the Arabic character, they retain the old Vattezhoot. A dialect of Malayalam is spoken by the forest tribes on the western slopes of the Anamullay range, the solitary instance of the Malayalam language having crossed the ghauts. (6) *Mahl.*—One island attached to this Presidency, Minicoy, lies half-way betwixt the Laccadives and the Maldives, and divides the "eighth degree" and "ninth degree" channels. The inhabitants number 3,191. They are Maldivians and differ essentially from the Malayaly inhabitants of the Laccadives. They are Mussalmans of the Soonnee sect, a dark, muscular, hardy people, industrious and bold seamen, and clever in boat-building, living while at home on the produce of the cocoanut trees and their fishing; but the bulk of the males go as seamen on trading vessels, Native and English. More than two-thirds of the women are coir-manufacturers. Little is known of the Mahl or Maldive language, but it is evidently Dravidian. The old written character where found is the Vattezhoot, but it has been superseded by Arabic. (8) *Tooloo.*—The language of the ancient and very limited kingdom of Tooloova is even more strictly localized than Malayalam. Only 427,000 persons speak it altogether and more than 426,000 of these are in Tooloova, the central part of South Canara district, and the few hundreds outside this spot who speak Tooloo are in the adjoining district of Malabar. The Chundragherry and Calyaunapoora rivers, in the district of Canara, are regarded as its ancient boundaries, and it does not appear ever to have extended much beyond them. Tooloo is a cultivated language. It is destitute however of a literature; and has no peculiar character, for which it employs the Canarese. Tooloo Brahmins use the Malayalam character for Sanscrit manuscripts. It differs far more widely from Malayalam than Malayalam does from Tamul. It approximates in character to Canarese and still more to Codagoo. (6) *Codagoo.*—This is sometimes classed among cultivated Dravidian languages, but it is in a very small degree cultivated. It is however an independent language, and not a dialect of one of the neighbouring tongues. It may be held to stand midway between old Canarese and Tooloo. It is the language of the province of Coorg, and extends very slightly into this Presidency. The retired and mountainous position of the tribe who speak the language has enabled them to maintain it free from change. They are only half converted to the Hindoo faith, practising polyandry and worshipping demons. They number about one-hundred and sixty-thousand. The language has no literature or character. The Canarese is used as the literary language, and is understood by all. Small as the area is where this language is spoken there are still dialects, but not distinctly named.

[13] Particulars of existing Languages of Dravidian Hill-tribes in the Presidency.—Many books and papers have been written upon the subject of the Todahs of the Neilgherries. Their residence is in the neighbourhood of Ootacamund, which has brought them under the observation of missionaries and scholars. They are in a low state of civilization. Their numbers could not at any time have exceeded a few thousands, and at present, probably through opium-eating and polyandria and through the prevalence amongst them at a former period of female infanticide, they do not number more than about seven hundred persons. They were preceded on the hills by a pre-Dravidian race, who have left clear traces behind them. The Todah language presents a peculiar variation of the Dravidian family, and is valuable for comparative philology. The language was once highly inflectional, but most of the inflections have been lost, and the people, degenerating probably as the result of isolation, have not replaced them by significant particles or auxiliaries to the same extent as has been done by the other South Indian tribes. The tongue has thus become a mere skeleton, and barely suffices for the purposes of a primitive people. It was originally Old Canarese. An emigration probably took place at one time from the coast to the hills. The Kotah tribe occupy the same country as the Todahs, but are quite distinct. They are a hardworking tribe, to a considerable extent submissive to the Todah race. They have resided from unknown antiquity in the Neilgherries. Though the language has some analogies with Tamul, it is really a very old and rude dialect of Canarese. Doubtless it was carried to the hills by a low-caste Dravidian tribe at a remote period of history. The language has no character or literature. The tribe known as Khond, Khand, or Kooi speak a Dravidian language. They have attained a notoriety amidst the tribes of India, as having maintained the practice of human sacrifice down to a late date. They occupy a portion of the hill tract known as the Cuttack Tributary Mahauls in the province of Bengal, and extend into the district of Ganjam in this Presidency. Several dialects are noted, as might be expected in a language which comes into contact with the Ooriyah of the Aryan and Teloogoo of the Dravidian family. The standard is uncertain, but there are separate dialects at Goomsoor and in the Orissa Mahauls. There is neither character nor literature, and it is to be regretted that the political domination of the Ooriyah people has led to Khond books being published in the Ooriyah character. Others have been published in the Roman character. The language is now one of those for the acquirement of which encouragement is given by Government. The number of victims rescued from the Meriah sacrifice, and transferred to mission schools, gave good opportunities of studying the language. It is distinct from Gond, and has a resemblance to Tamul and Canarese. The number of the Khonds in the Madras Presidency amount to one-hundred and forty-seven thousand. In old maps of India a large territory was marked Gondwana, which is now part of the Central Provinces. The tribe of Gonds is found also in Bengal and Madras. In fact the tract reaches from the Vindhyan mountains to the river Godavery, and from the country of the Khonds in the Cuttack Tributary Mahauls as far as the country of the Bheels and Candeish

Khond; 8,000 who speak Gond. Altogether there are twenty-nine millions speaking Dravidian languages. From time to time colonies of Teloogoo and Canarese-speaking people have found their way down to the southern or Tamul country. In some cases they have been invited to settle as cultivators in localities where waste lands were available; in others they followed in the train of invading armies. There is no instance of the Tamul people advancing their colonies towards the north. The migrations in modern times have been always from north to south. In the large military cantonments of Secunderabad and Bangalore there are Tamul-speaking populations, but these people have settled as camp-followers. In Vol. II, App. XX, is shown for the Presidency a list of the Dravidian languages and what are held to be their dialects, with the population speaking each to show their extent. Another list in the same Appendix shows the languages of the remainder of the population. In the table next following the numbers shown in the preceding scheme are thrown together and the proportions for each group are given. The ten Dravidian minor dialects are spoken by only about 30,000 persons in the aggregate. They occur locally as shown in the final table of the same Appendix. The Tamul-speaking inhabitants of the Coromandel Coast can make themselves intelligible on the western coast of the peninsula, where Malayalam is vernacular. On the other hand though Tooloo has a strong resemblance to Malayalam the Tooloovas cannot understand the Malayalies. The affinity between Teloogoo and Canarese is so great that in order to make the correspondence complete it frequently suffices to change an initial or an inflection. The languages most widely apart are the Teloogoo and Tamul; these being as distinct as Spanish and Italian. The southern dialects become intermixed as each approaches the other's limits. The tribes inhabiting the hills and forests speak corrupt dialects of the languages of the contiguous plains. The Malasar, or hill tribes inhabiting the Southern Ghauts, speak a form of Malayalam in the northern part of the range, where the Malayalam is the prevailing language; and a form of Tamul in the southern part of the range, where Tamul-speaking districts adjoin. The Tamul language shows the greatest tendency to spread. It displaces Teloogoo, which in turn displaces Canarese. The Malayalam remains stationary.

36. For an analytical notice of a Dravidian language, reference can be made to the foot-note below [14]; which gives a description of Tamul that might in many

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and Malwah to the west. There is a close affinity in the Gond language to Tamul, Teloogoo, and Canarese; in some particulars to one, and in some to others. There are many Hindee words, and on all sides there are transitional forms of debased admixture of Gond with the adjoining languages. It has an elaborate conjugational system for the verb, and, as this is not a feature of other Dravidian languages, it is possible that it was borrowed from the contact of Kolarian neighbours. There is neither character nor literature.

[14] A SPECIAL ANALYTICAL NOTICE OF THE TAMUL LANGUAGE.—*Shen Tamul and Codoon Tamul.*—Tamul has two dialects, high and low. The high, classical, or learned dialect is called Shen Tamul (shen meaning perfection). The low, vulgar, or colloquial dialect is called Codoon Tamul (codoon meaning rude). The Nunnool in place of two specifies three kinds of Tamul, the Iyal, Isay, and Naudaga; or the Prose, Poetic, and Dramatic. The last contains a mixture of both prose and poetry, and of the high and low dialects. Shen Tamul is remarkable for its conciseness and copiousness. It is the pliant and glowing language of the Tamul poets. Codoon Tamul is the present spoken language of the people. All business is transacted in the latter, and all stories and prose translations are written in it. The two differ greatly, and a scholar may be familiar with one without comprehending the other. The same analogy exists between these dialects as between Sanscrit and the Pracrits. The high dialect is on the whole the more ancient. The hill tribes use more of the high than of the low Tamul words. (2) *The alphabet.*—This is fully explained in Vol. II, App. XXVII. Tamul rejects all aspirates. The consonants zh, ṛ, and ḷ are peculiar to it, and words in which these letters occur must be exclusively Tamul. The second consonant ch is made to represent all sibilants. The Sanscrit sibilants and the aspirate ह h are introduced into some books in the Granta characters. The Tamul has no visarga nor anooswaura. The most difficult letter for a European to pronounce is the zh. Even some natives substitute ḷ or y instead. The vowel is very expressively called ooyir, life or soul; and the consonant mey, body. The compound or syllabic letter is called ooyirmey, soul and body. The Nunnool only admits of three original vowels, viz., a, i, oo. As in Sanscrit, the vowels are represented as medials and finals by certain signs, and the first vowel is inherent in all consonants. A dot or viraumam is placed over the quiescent or mute consonants, which are divided, according to the distribution of Greek mutes, into three classes of hard, soft, and medial; for which see the Appendix. In Tamul no other combination of consonants is admitted than the duplication of mutes and the junction of the nasal and the mute. The combination and permutation of letters called Sandhy are as refined as in the Sanscrit; but are not borrowed from it. (3) *Parts of speech.*—The Nunnool admits only four parts of speech, viz., the noun, the verb, the particle, and the adjective. There is no article. The pronoun is included in the noun; the prepositions or properly postpositions, conjunctions, and interjections in the particle, and the adverb in the adjective. There is only one declension of nouns, and not many as in Sanscrit, which has as many declensions as there are terminations of nouns. There are eight cases, which with very few exceptions, have the same terminations. There are only two numbers. The gender is simple and natural. Every word according to its sex and nature is called he, she, or it. Six common relations of nouns are specified, viz., substance, place, time, parts, quality and action to which every noun is referred in construction. All nouns, besides being divided into common and proper, causal and arbitrary, are also divided into two great classes, viz., the superior and inferior class. Names of men, gods, and demons belong to the superior class. Names of all animate and inanimate things belong to the inferior class. (4) *Peculiar use of singular and plural.*—Personal pronouns and nouns have two plural forms, both of which are sometimes used as honorifics, designed to mark

respects be transferred to the sister languages. Where there are differences between those languages Tamul may be taken as the original. Vol. II, App.

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superiority in the person to whom they are addressed. Verbs used with such nominatives change their terminations accordingly. (Nán), I, becomes (Nám) or (Nángaḷ), literally 'we' when a person speaks of himself with dignity. (Ní), Thou, becomes (Nír) or (Níngaḷ), Ye, You, when another person is addressed politely or respectfully. (Avan), He and (Avaḷ), She, become (Avar) or (Avargaḷ), They, when a third person is referred to respectfully. There is another peculiarity in the use of the plural (nám) and (nángaḷ). (Nám) includes both speaker and hearer; as in the sentence 'we are all men.' (Nángaḷ) excludes those spoken to, and is the proper correlative of (Níngaḷ), ye. (5) *The numerals.*—The following is a list of the Tamul numerals, showing where they agree with the Greek and Sanscrit:—(Onṛu) or (Oru) = One, ἕν, हन; (Raṇḍu) = Two, δύω, द्वि; (Múnṛu) = Three, τρεῖς, त्रि; (Nál) or (Nángu) = Four; (Aindu) = Five, πέντε, पञ्चन्; (Áṛu) = Six; (Ezhu) = Seven; (Eṭṭu) = Eight, ὀκτώ, अष्टन्; (Onbathu) = Nine; (Pattu) = Ten. (6) *The Verb.*—The Tamul verb is not so complex as the Sanscrit. It is termed vinay, action; and is divided into three parts, viz., the root, the termination, indicating person or thing; and the particle, or intermediate augment, showing time. There is an exact correspondence in the termination between the demonstrative pronouns and the third persons of verbs. A Tamul verb possesses only three original moods, viz., the indicative, imperative, and the infinitive. The optative and subjunctive are added. The last three are formed directly from the indicative in various ways. The imperative is generally the root. The indicative has three tenses, formed on a very simple method, and each tense has three persons; and the genders are indicated by characteristic terminations in the third person singular and neuter plural. The six incidents of the verb are the agent, instrument, place, action, time and object. This part of Tamul grammar is singularly simple and clear. All verbs have a causative form, made from the future indicative. Thus, from (naḍappén), I will walk, are formed the following causatives:—(Naḍappikkiṛén) I cause to walk; (Naḍappikkiṛáy) thou causest to walk; (Naḍappikkiṛán) he causes to walk. There is also a double or reflex causal verb, but seldom used. The Tamul language has a negative verb, which, without the aid of particles, conveys a negative signification. The formation of a negative verb, by the mere removal (except in the third person neuter and its derivatives) of the several characteristic augments of the affirmative, is one of the striking peculiarities of the Tamul language. From the root (naḍa) walk, and from the indicative (naḍakkiṛén) I walk, is formed the negative (naḍavén) I will not walk. (7) *Participles and gerunds.*—In connection with verbs the defective or auxiliary words are to be considered. These are the participles and gerunds which are constantly used in Tamul sentences. Participles supply the place of relative pronouns, which, except in the interrogative forms, do not exist in Tamul; as (avan tanda paṇam ithu), "this is the money which he gave." Tanda is a participle; and there is no substantive or finite verb in the sentence. The verbal participle, or gerund, is analogous to the compound perfect participle in English, as (vandu pónán), "having come, he is gone." (8) *The verb-defect or half-noun half-verb.*—The (vinaikkuṛippu) or symbolic word is peculiar to Tamul. There is no other language in which it exists. It exhibits in a striking light the scientific refinement of the high dialect. Appellatives which are declined like common nouns abound in the language. Symbolic words are somewhat different; they have the form and regimen of both nouns and verbs. As, in common with other languages, the verbal noun in Tamul is liable to inflection; so by a remarkable interchange of the properties peculiar to different parts of speech, its symbolic words are liable to be conjugated as verbs. Of the six incidents of the verb, already enumerated, the symbolic word, or nominal derivative, indicates only the first, viz., the agent, and is conjugated through each person, gender, and number; but is entirely indefinite as to mood, tense, &c. It is employed mostly in high Tamul, and is usually formed from a root or primitive noun, used chiefly as an adjective. It may also be formed from any noun. Thus from aḍi, step, foot, root, servitude, is formed (aḍiyén), I your servant, &c. The existence of a conjugated derivative gives the Tamul the stamp of great originality. (9) *Adjectives.*—Adjectives admit of no variation of form to express gender, number or case, or even degrees of comparison. The comparative is expressed by the dative or ablative case of the noun. As, "this is better than that," would be, to that this is good; the superlative is expressed by of all, as, "that is greatest," would be, of all, that (is) great. (10) *Syntax.*—The structure and idiom of the language are very simple and natural. Tamul grammarians do not treat of syntax apart from etymology. There are only two parts of a sentence, the subject and object, or the subject and predicate. The subject always precedes the finite verb, which concludes the sentence. The most important of the dependent words is placed nearest to its principal, and the least important farthest from it. The adjective always precedes the substantive. The adverb precedes the verb. The infinitive precedes the governing verb. The negative branch of a sentence precedes the affirmative. The comparative precedes that which is compared. The similitude precedes that which is similar. The genitive precedes the governing noun. The cause precedes the effect. The reason precedes the inference. The purpose precedes the determination. The condition or supposition precedes the consequence. In active transitive verbs, both the subject and object precede the verb; as (nán avanai aḍittén) "I him beat." The English sentence, "the man who came here yesterday," would be reversed in Tamul, thus, "yesterday here (who) came (the) man." No language combines greater force with equal brevity; none is more close and philosophic in its expression as an exponent of the mind. The sequence of things, of thought, purpose, action and its results is always maintained inviolate. Rank and station are provided for by the use of various pronouns, extending to several degrees of honorific expression. The language abounds in words expressive of the different degrees of affinity. Where, in European languages, a long periphrasis would be required, Tamul presents the object or idea in a single term. This fecundity extends to all the ramifications of terms of consanguinity or relationship. If one speaks of a sister, he may either take a word that gives the relationship subsisting between the two, or may select one that will indicate the relative ages. Measures and divisions of time are equally minute and expressive. The language, thus specific, gives to the mind a readiness and clearness of conception, whilst its terseness and philosophic idiom afford equal means of lucid utterance. (11) *Roots.*—The following are a few of the common roots and words peculiar to Tamul:—(uḍu) clothe; (eḍu) take; (koḍu) give; (paḍu) become, suffer, lie down; (viḍu) quit, leave; (piṛa) to bring forth, to be born (Latin pario); (uḍai) break; (vai) place; (pó) go; (káṇ) see; (shey) do; (kal) learn; (kol) kill; (shol) tell; (nil) stand; (vil) sell; (tin) eat; (óḍu) run; (kaṭṭu) tie; (páḍu) sing; (póḍu) put; (múḍu) shut; (tiṛa) open; (paṛa) fly; (maṛa) forget; (ká) watch; (tá) give; (teri) know; (vá) come; (avá) desire; (kuḍi) drink; (aṛi) know. Some of the common nouns are: (tarai) earth, (Latin terra); (ván) sky, heaven; (vazhi) way, (Latin viâ); (áṇ) man; (peṇ) woman (English hen); (magan) son; (magaḷ) daughter; (talai) head; (múñji) face; (kaṇ) eye; (pal) teeth; (ná) tongue; (uḍal) body; (uyir) life; (kál) foot; (kai) hand; (pasi) hunger; (náyiṛu) sun; (nilá) moon; (aṛam) virtue; (maṛam) vice. Tamul is called by old writers the Malabar language. The word Tamul or Tamizh signifies 'sweetness' or 'melodiousness' intimating the high estimation in which this language is held. As pronounced by the middle classes it is decidedly euphonious. The characters are read from left to right, as in English and other European tongues. Winslow's Tamul Dictionary contains 67,452 words. In native books the words are printed without separation, certain letters being altered, omitted, or doubled, according to the connection; thus (vandu irukkiṛén), 'I have come,' becomes (vandirukkiṛén); (sholla pónán), 'he went to tell,' becomes (shollappónán); (kaḍal tirai), 'wave of the sea,' becomes (kaḍaṛṛirai); and so on. 'And' is expressed by the addition of (um) to the various nouns, like the 'que' subjoined to the last of two nouns in Latin; as (kuthiraiyum manithanum), 'the horse and the man.' There is no definite article in the language; but (oru)—'one' is used for the indefinite article 'a.' To denote quotation, the conjunction 'that' is not used, but (enṛu), 'saying;' thus, 'he said that he would come' would be expressed as, 'I will come, saying, he said.' There is a set of onomatopoeic words much used in Tamul, expressing by their sound alone the idea intended. Thus a Tamulian says, he walks (tagtag), that is to say stepping heavily. He walks (tattakkapittakka), that is, tottering. In English have been adopted several words of Tamul origin. Cigars are called cheroots, from the Tamul (shuruṭṭu), a roll; cot, occasionally used for 'a small bed,' is from the Tamul (kaṭṭil).

XXVII, also gives an account of Tamul orthography, mainly from the point of view of transcription into the European characters. Vol. II, App. XXVIII, explains the letter ழ, one of the most characteristic points in Dravidian orthography. Vol. II, Appendix XXIX, is introduced to show the greatest extent to which Brahmins have succeeded in Aryanizing the local geographical names [15]. The example taken is from Tanjore, where the Aryan influence has been greatest; and it appears that 75 per cent. of the places have pure Tamul names, 13 per cent. have pure Sanscrit names, and 12 per cent. have mixed names. In some parts of the country there is no Sanscrit element in the geographical nomenclature. Vol. II, App. XXX, gives a key to the way in which the indigenous geographical names are constructed. Vol. II, App. XXV, is a general comparative Dravidian vocabulary. Vol. II, App. XVIII and App. XIX contain the Dravidian printed and written characters. The vernacular characters are not convenient. A fluent reader is almost unheard of, nor is it possible to write rapidly without falling into error. The greatest difficulty however occurs in the art of printing. Founts of type are required containing from 700 to 1,000 letters, simple and compound, for each language. The cost of preparing such a fount, and the difficulty with which a compositor has to contend in having so many objects before him are an impediment to the dissemination of vernacular literature. The future of the vernacular characters cannot be foreseen.

37. The literature of the Dravidian authors is separated by them into two great divisions; Ilakkanam or the art of writing elegantly, and Ilakkiyam or elegantly

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[15] NOTE ON INFERENCES TO BE DRAWN FROM TAMUL GEOGRAPHICAL NAMES—(1) *Topography.*—That a country has many rivers and canals may be inferred by the frequency of the following adjuncts meaning river, canal, &c. :—(áṛ) or (áṛu), (kál), (kaṇṇi), (váykkál), (veṭṭáṛ). That it is highly cultivated with rice-fields, gardens, groves and plantations, by the following :—(shey), (kollai), (maruthúr), (nellúr), (pulam), (púṇḍi), (tóppu), (tóṭṭam), (vanam), (vayal), (véli). That the country is low and flat, by the frequency of the following :—(karai), (kóṭṭagam), (kuzhi), (mathagu), (paḍugai), (paḷḷam), (paravai), (vayal), (veḷi). That there are no hills, mounds, or rocks, by the general absence of names signifying hill, &c. :—(asalam), (kiri), (kuṇṛu), (malai), (kal), (karaḍu), (kunnam), (méḍu), (páṛai), (paṛambu), (tiḍal), (tiṭṭu), &c. That there is an absence of tanks and reservoirs by the absence of the following names meaning tank, reservoir, &c. :—(éndal), (éri), (kammáy), (kuḷam), (kuṭṭai), (samuttiram), (taḍágam), (táṅgal), (úraṇi). (2) *Population.*—The presence or preponderance of Brahmin influence will be shown by the following adjuncts :—(ágaram), (akkiráram), (aiyan), (ísuvara), (kóvil), (maṅgalam), (páppán), (Perumáḷ), (puram), (suvámi), (tiru). Also by familiar Brahminical proper names, for instance :—(Shandirappáthi), (Hariççandiranathi), (Kóppálappuram), (Kalliyáṇappuram), (Kiruṭṭiṇáppuram) for (Krishnapuram), (Kuttálam), (Magáthévippaṭṭaṇam), (Magáliṅgam), (páppanásam) or (pávavinási), (Perumáḷ), (pudbavanam), (Ragunáthappuram), (Rámasuvámi), (Rámésuvaram) also called (Tiruva Rámésuvaram), (Ranganáthappuram), (Somésuvarappuram), (Shirírangam), (tengási), (tiruppáltturai tiruppuvanam), (véthárаṇiyam), many of which are to be found in the most fertile parts of Southern India, in the great river basins and deltas where the chief Brahmin communities are found, in Tinnevelly and Madura, and on the rivers Tambrapurny, Veigay, and Cauvery. (3) *Religion.*—Names connected with the cow point to the worship of that animal; examples are :—(áttaḷaiyúr), (ávúr), (Kóppálasamuttiram), (kómal), (Kóvindakkuḍi), (kóvúr), (paṭṭísuvaram). A relic of the former prevalence of tree and serpent worship is to be found in the remarkable group of Naga names, which runs in a line from Nagore and Negapatam on the coast as far inland as Trichinopoly. Serpent names are as follows :—(nágai), (nágakkuḍi), (nágalúr), (nágalppúṇḍi), (nágamaṅgalam), (Náganáthasámi), (nágandi), (nágappaṭṭaṇam), (Nágarásappuram), (nágáttúr), (Nágésuvaram), and (nágúr), also (pámaṇi), (pámbanóḍai), and (pannataru). Some of these names may however perhaps be traced to the Tamul (nángal), a plough. Sacred tree names are :—(álaṅguḍi), (álattúr), (arasúr), (atti-átti), (kathambúr), (tuḷasippaṭṭaṇam), (vannippaṭṭu), (vémbukkuḍi), and (vilvanúr), &c. The religion of the masses of the people is shown in such words as the following :—(Aiyanár), (amman), (Káḷi), (Káttán), (Káṭṭéri), (Mári), (nága), (Perumáḷ), (Piḍári), (Piḷḷaiyár), (Sháttan), (Shivan). The devil (péy) worship that is common amongst the lowest tribes of the south, the Shaunaur, for instance, is shown by such words as (asura), (rákkatha), (pisácha). The villages of the lower orders are indicated by such names as (shéri), (kuḍi), (paṭṭu), (péṭṭai), (úr), (veḷi), &c. The preponderance of an agricultural over a military population will be shown by the absence of (kóṭṭai) fort and (páḷaiyam) fief. The presence of wild aboriginal and pastoral tribes is shown by names, such as (iḍaiyan), (kaḍaiyan), (kuṛumban), (kuṛavan), (oṭṭan), (paṛaiyan), (paravan), (valaiyan), (véḍan), &c. (paṭṭaṇam,) frequent on the shore of Palk's Bay to the south of Point Calimere, gives way to (paṭṭaṇaççéri) and (paṭṭaççéri) or (paṭṭiççéri), on the coast for 40 or 50 miles to the north of that point as the name for a coast village. On the north of the Coleroon the commonest name for a fishing village on the coast is (kuppam), which again is succeeded north of the Palaur by (pákkam). (4) *The Vegetable Kingdom.*—The following parts of names derived from the vegetable kingdom will indicate probably a very primitive population :—(ál) banyan, (arasu) peepal, (atti) fig, (áválai), (avuri) indigo, (elumiççai) lemon, (íççam) date, (ilavam), (iluppai), (iñji) ginger, (káççán), (karumbu) sugar-cane, (kattiri) egg-plant, (má) mango, (mañjaḷ) turmeric, (nával), (nel) rice, (nuṇa), (pálai), (panai) palmyra, (parutti) cotton-plant, (pirambu) cane, (puḷi) tamarind, (támarai) lotus, (tennai) cocoanut, (tuḷasi) toolsee, (tuvarai) lentil, (vanni), (vélam) thorn, (vémbu) neem-tree, (viḷá) cratæva-religiosa, (vilvam) Bael. (5) *The Animal Kingdom.*—The same may be said of the following parts of names from the animal kingdom :—(á) cow, (áḍu) sheep, (ánai) elephant, (erumai) buffalo, (kappi) monkey, (kaṛaiyán) white ant, (kó) cow, (kokku) crane, (mán) deer, (mayil) peacock, (nág) snake, (nari) fox or jackal, (puli) tiger, and (púnai) cat. (shéri), (toṭṭi), (kóvil), (kuppai), (kuppam), (pákkam), (páḷaiyam), (puram), (váḍi) and (valasai) are the commonest affixes to the proper names of villages and hamlets in the Tamul country. (áṛu), (éri), (kuṇḍam), (kál), (kuḷam), (kuṭṭai), (samuttiram), and (váykkál) are common affixes meaning river, lake, pond, tank, and channel or canal. (kal), (karaḍu), (kunnam), (méḍu), (páṛai), (paṛambu), (tiḍal), (tiṭṭu), mean rock, mound, hillock, mount; and (kiri), (kunṛu) and (malai) mean hill, mountain. (6) *Analysis of the method of Sanscritizing Dravidian names.*—This happens in four ways, "a." By an alteration of the whole name. (Tálavṛinda) translated from (Panaikkáḍu), "palmyra grove;" (Vaṭáraṇya) translated from (Álangáḍu), "banyan-grove;" (Bálá puri) translated from (Koççi) or Cochin meaning "a girl;" (Káñchipura) wrongly transliterated from (Kanji) or Conjeveram. "b." By a partial translation of the last part of a compound word, which last part means town, village, mountain, &c. (Konkaṇapura) for (Konkaṇahaḷḷi). "c." By a change of Dravidian names the meaning of which was unknown to the Aryans, so as to render them conformable to the Aryan mythological system. (Páṇḍya) and so a derivation from (Páṇḍu) for the Tamul (Páṇḍiyan); (Ráshṭra) from (Raṭṭ£) or (Reḍḍi); (Mahábalipura) from (Mámallaipura). "d." By the substitution of an entirely new name, the first part of which is the name of the god worshipped, and the second part (st'hala) or some equivalent word. Examples of this are common.

written works. The first comprises all works on grammar; including logic, prosody, rhetoric, and the nigantoos or dictionaries. The second includes all approved poetical compositions, whether original or translated. Ilakkiyam is composition constructed on the principle of the Ilakkanam. This Ilakkanam is treated under five heads. The section on letters constitutes that part of grammar which deals with the number, name, order, origin, form, quantity, and combination of letters; with their initials, finals, medials, and substitutes. The section on words treats of the four parts of speech, namely noun, verb, particles, and adjectives. This includes etymology and syntax. The third section is matter; or the mode in which, by writing words, a discourse is formed. This section treats of amplification, of the passions and affections of the mind which act internally on man, and of things belonging to the external world. Versification contains the laws of prosody. Embellishment is the European rhetoric. There are many Teloogoo teecas on Sanscrit grammars; that is to say, verbal glossaries to illustrate the meaning, with verbal translation sometimes added. For the old Andhra language the work of Canva is lost, and the work of Nannayya Bhatt, with a number of explanatory comments, is now the standing authority. The chief of these comments are the Baula Saraswateeyam, and Ahobala Panditeeyam, with the Appacaveeyam. The result of Nannayya's work was to strain the simple, mellifluous language, in fitting it to a Sanscrit frame. In Tamul the native grammars which are independent of Sanscrit, are more abundant. The first reduction of the language to rule is ascribed to Agastya; who has as much laid to his account in the south as has Vyausa in the north. Agastya's grammar is lost; and probably it did not extend beyond the formulation of written characters, with a few rules. His disciple, whose name is unknown, composed the Tolgauppiam or ancient poem, which is the real foundation of Tamul grammar; an elaborate work, and understood by few. This work was abridged in the Nunnool, which is the usual authority now referred to, and on which many minor works have been founded. Indeed for logical arrangement and comprehensive brevity the Nunnool stands conspicuous among the grammatical treatises of all nations. The term Nunnool, literally fair thread, corresponds to the French term Belles Lettres or to the Latin term Litteræ Humaniores. In Canarese there are teecas on Sanscrit works; but only one original Canarese grammar by Kesava, entitled Shabdamanidarpana or mirror of word jewels. In Malayalam there is no native grammar, and the country is reckoned by native authorities as one of the districts in which an impure or provincial Tamul is spoken. The basis of the Malayalam language is low Tamul; and it assumes a special form by having distinct characters moulded on the Granta letters, and by being largely interspersed with Sanscrit. The leading lexicographical work for the Dravidian languages is the Sanscrit Amaracosha, by Amarasimha, a Jeina; which has a number of comments, with translations into Teloogoo, Canarese and Malayalam. There are other lexicons formed on somewhat artificial principles; as for instance for words of one letter or two letters, for words having only dual meaning, and for words of many meanings. There is also a lexicon of materia medica. The Tamul Nigantoo, also by a Jeina, is an old and standard work, which survived the extermination of the Jeinas, as did the Amaram; and the preservation of both is ascribed to miracle. Under the head of Ilakkiyam, the Dravidians have epic, lyric, ethic, dramatic, scientific, and philosophic pieces; but of these by far the most important are the ethic. The principal epic is the Ramayana of Cumban. Of the lyric style the following is a specimen. In the Neishadam, it is said of Damayanty, that when Brahma had created her, her form had only one rival in the universe, the moon itself. But Brahma determining that every beauty should centre in Damayanty, took a handful of beauty from the face of the moon, and threw it into that of Damayanty. The deformity is still apparent in the planet. In the reign of Vamshashekhara of the Paundy kingdom was founded the Madura college, for the cultivation of the Tamul language and literature. This was then the most celebrated seat of learning in Hindostan, and its forty-eight Shangattaur or professors have made a great ethical style. The Cooral of Tiroovulloovar is the most venerated and popular book south of the Godavery. Auveiyaur is the Dravidian Sappho, though with a graver theme. The Parnassus of the Dravidians is Pothiyamullay, near Cape Comorin. The minor rules to which all Dravidian poetry must be conformed are remarkable. Letters are divided into classes, which are divine.

Both classes and letters have their proper place. Some are propitious, some are not so. A poem should always begin with a fortunate syllable. In writing lampoons, the reverse; and if a poet wishes ill to any one he employs bad letters. Cumban killed a king by this method. The measures of poetry are very varied, and the Tamul venbah is as composite as the Italian sonnet. The shloca is not Dravidian but Sanscrit. The rules of cæsure are just. The rhyming syllable is generally the second syllable of the first foot. Alliteration is frequent. Here it should be noted that European poetry is designed for perusal in the cabinet, but this for public recitation. Hence the attention paid to classes of letters, and to the flow of sounds without hiatus. There are very few original dramatic compositions in the Dravidian languages. But all the celebrated Sanscrit pieces are translated; even the Prabodhachandrodaya, a Vedantic drama, much resembling Bunyan's Holy War. Portions of these are sometimes acted at weddings. When a nautch is given a simple Tamul drama is occasionally performed. It is constructed so as to be recited by one person; though containing a variety of incidents and affording scope for powers of elocution and mimicry. The most popular of these is known as Ammaulbhaunam. There are treatises on arithmetic, logic, architecture and astronomy; but nothing of importance. Those which come under the head of geometry relate really to land-measuring. Tamul however abounds in medical works. As to the various and minute appointments of the sacerdotal law, these run as a tissue through the whole literature. They have not been much translated into the vernaculars, but they are too important in practice for mention not to be made of them here. The Menoo smrity, or Institutes of Menoo, are obsolete in the present age. The code by Paraushara, as expressly designed for the Kaliyoog, has superseded it. The code of Yajnavalcya is of high authority, in brief Sanscrit apothegms. The paraphrase on this code by Vignauneshwara, known as the Vignauneshwaryam, is a standing authority in the southern part of the Peninsula. The Smrity Chandrica, and the Pratauparoodreeyam, are of authority and use in the Teloogoo country. Hindoo law is usually divided into three khandams, or parts; the acharya or sacerdotal, vyavahaura or secular, and prayaschitta or penal. The secular Hindoo law proceeds on the principle that the king sits personally in judgment, with his minister as chief adviser. The question whether real property is temporal or spiritual with which the native law treatises open, is determined in favor of the latter view; because a son acquires a right of inheritance not from birth solely, but from setting fire to the funeral pyre of his father. On this was founded formerly one of the most solid pillars of Brahminical authority; one who had lost his caste could not discharge that last duty, and by consequence could not inherit ancestral property. The Dravidians proper do not pay much attention to this view. The philosophical works are numerous. Besides the Vedantic works, such as the Bhagavatgeeta, the Vaushishta, the Mahavaukya, and the Oopanishads, the Sheiva Augamas have been translated into Tamul. The most popular religious book of the Veishnavas is the Tiroovyemozhy, containing hymns of praise in honour of Vishnoo, which are recited in temples by the South Indian Brahmins instead of the Sanscrit Vedic hymns. The counterpart of this amongst the Sheivas is the Tiroovausagam, consisting of hymns in praise of Shiva, sung in his temple by Sheiva Pandaurams [16].

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[16] SKETCH HISTORY OF DRAVIDIAN LITERATURE.—TAMUL.—Tamul literature is the oldest among the Dravidian
languages. To the sage Agastya (of unknown date) are attributed not only the formation of the alphabet and the first
treatise upon grammar, but also a number of treatises on various sciences. But nothing authentic survives from such
an ancient time. The oldest extant Tamul grammar is called the "Tolgauppiam," that is to say, "the ancient book."
Such a work must have been preceded by centuries of literary culture, as it lays down rules for different kinds of
poetical compositions, deduced from examples furnished by the best authors whose works were then in existence. Its
date however cannot be fixed. Next come the "Cooral" of Tiroovulloovar and the "Chintaumany," when Tamul
literature reached the summit of its perfection, but even now their date cannot be fixed with certainty. The Cooral
means 'short lines' and consists of 1,330 verses, each of two lines, on the three subjects of virtue, wealth, and love.
The Chintaumany, a brilliant epic poem, was somewhat later than the Cooral. About the same time as the Chintau-
many appeared the oldest classical dictionary of the Tamul language, called the Divaucaram, a work ascribed to Shen-
danaur, a member of the Madura college. The "Shilapadicauram" may be mentioned here as one of the five ancient
classic poems. At the same time as Tiroovulloovar, flourished Auveiyaur, who is reputed somewhat doubtfully to have
been his sister, and whose moral apothegms are of a high order. There is another work (probably written about the
same period) called the "Nauladiyaur," which is a collection of 400 epigrams on moral subjects by as many authors.
In this period may also be placed the most celebrated and authoritative of Tamul grammars, the Nunnool of Pavanandy.
The Tamul version of the Ramayana by Cumban is an imitation rather than a translation of the Sanscrit poem. Two
large collections of hymns breathing an eminently religious spirit belong to the period of the Sheiva revival (about
the end of the eighth century A.D.). Their titles are Tiroovauchagam by Maunicavausagar and Devauram by Nyauna
Shambandhar and two other devotees. The Veishnava revival, the date of which is about the same as that of the

38. As above mentioned, of Kolarian languages [17] occupying an area, the only representatives are the Sowrah and Gadabah of Ganjam [18]; and of an Aryan language occupying an area, the Ooriyah is the only representative[19].

Sheiva, is also commemorated by numerous hymns, which are included in the Naulayiraprabandham (the book of 4,000 hymns). After a long period of inactivity probably nearly two centuries there was again a literary revival. The most celebrated poet of this period was Athiveerarama Pandiyan, a king of the eleventh century whose real name was Vallabha Deva. He wrote the "Neishadam," a version of the story of Nala, and the "Causicaundam." His best work is a small poem called the "Vettivergay." Probably most of the medical treatises were composed in this period, and also most of the compositions included in the list of Tamul "Minor Poets." The compositions of the so-called Siddhar school may be placed at a later date. The most striking is the "Shivavaucyam" or "Words about God." The Jesuit missionary, Robert de Nobili, who lived and preached at Madura towards the commencement of the seventeenth century, was a distinguished Tamul scholar. Among his works may be mentioned Nyaunopadesham Khaundam 'Book of Spiritual Instruction'; Satyavedalacshanam 'The Nature of the True Veda'; Jesoonautharcharitram 'History of Jesus Christ'; and a Tamul and Portuguese dictionary. During the last and present centuries, which may be styled the modern period, books, though generally of little value, are exceedingly numerous. Among them may be mentioned the "Prabhoosingaleelah" (a translation of the Canarese), and a small ethical treatise called the "Neetinerivilacam." The two chief poets of this period are Tayoomaunavar and the celebrated Beschi, a missionary priest of the Jesuit order, who acquired an extraordinary knowledge of Tamul. Pattanattpilleiyaur may also deserve a passing notice. Beschi's chief poetical work is the Tembauvany. He also wrote several minor poems of great merit, such as the 'Kittairiyammaul,' or 'Life of Queen Catherine of Portugal'; the 'Tirchauvaloorcalambam,' &c. Among his prose works may be mentioned the 'Vediyaroloocam,' a series of considerations touching the duties of one called to an apostolic life; the 'Paramaurtagoorookathay' or 'Tale of the Foolish Priest and his Disciples'; a commentary in Tamul and Latin on the 'Cooral'; some controversial works; a Tamul grammar; various dictionaries; and a vast quantity of miscellaneous works. The whole of the above works are written in the highly artificial Shen Tamul. This species of literary style is peculiar to the Dravidian languages. It may embody some of the peculiarities of the ancient language spoken at the time when it was produced, but it is not considered to be to any great extent typical of it. The modern Tamul talked by the vulgar is probably more near to ancient Tamul than is the Shen Tamul poetical style. In the present century a sound prose style first appeared. This is in the Codoon Tamul of the grammarians, that is to say, the common or current tongue rejected by the poets. The reputed originator of the style is Tanndava Roya Moodelliar, the author of the Tamul prose version of the Punchatantram. It is deserving of notice that alliteration is a feature of Dravidian poetry, as it is of Welsh. The chief peculiarity of Dravidian rhyme consists in its seat being at the beginning of the line, the consonant which intervenes between the first two vowels in a line rhyming with another consonant similarly placed. Well-known books by foreigners in Shen Tamul are:—"Shen Tamul Grammar of C. J. Beschi, the Jesuit, 1744, translated by B. G. Babington;" "Clavis sublimioris Tamulici idiomatis," published at Tranquebar, in 1876. And in Codoon, Tamul:—"Grammaire Française-Tamoule," published at Pondicherry, in 1863, by a French priest, the Abbé Dupuis; "Outline of Tamul Grammar" from the Bibliotheca Tamulica of C. Graul; "Tamul Dictionary," by Dr. M. Winslow, published at Madras, in 1862; and "Dictionnaire Français-Tamoul, par deux Missionaires Apostoliques," published at Pondicherry. The latter is the best work of its kind. There is no useful English-Tamul Dictionary. That of the Jaffna mission in Ceylon is the best, but it is highly pedantic, and scarcely representative of South Indian Tamul. The Rev. P. Percival has published a small English-Tamul Dictionary. Dr. G. U. Pope's different manuals are of practical value. The best reading book is Beschi's "Story of Gooroo Paramaurtan," which has appeared in numerous editions at Pondicherry. Tamul has an important Christian literature, at the head of which may be placed the translation of the Bible and of 369 church hymns. The best translation of the Bible is that of the Missionary Fabricius, but there are also three others. There are several Tamul newspapers and an immense quantity of Tamul tracts. The Christian Vernacular Education Society printed between 1862 and 1871 1,088,320 Tamul school-books, and other works printed during these years (without counting the productions of the Bible Society) amount to more than 4 million copies, a much greater number than any other language in India can claim. (2) TELOOGOO.—The earliest writer on Teloogoo grammar is said to have been a sage called Canva, living at the court of a king Andhra Roya, on the banks of the Godavery. The date of this Andhra Roya is unknown, and his name does not occur in any inscription or list. He is however worshipped as a deity at Chicacole. This work, if it ever existed, is now lost, and the oldest extant work on Teloogoo grammar (written in Sanscrit) is the work of a Brahmin called Nannaya Bhatt, in the reign of Vishnoovardhana, of the Chalookya dynasty, whose probable date is the twelfth century A.D. The same Nannayya is said to be the author of a portion of the Teloogoo version of the Mahabharat, which is looked upon as the standard of Teloogoo poetry. With the exception of a few works composed towards the end of the twelfth century, nearly all the Teloogoo works now extant were written in the fourteenth and subsequent centuries. A large collection of popular aphorisms on religious and moral subjects attributed to the poet Vaumana date from about the beginning of the eighteenth century. Among foreigners who have contributed to Teloogoo literature may be mentioned Messrs. Campbell, Brown, Morris and others. The first two named have published Teloogoo grammars and dictionaries. (3) CANARESE—*Jains.*—The originators of Canarese literature were the Jains or Jeinas. Their works probably date back as far as the fourth century A.D. The following are some of the scientific Jeina works in Canarese. Naugavurma's 'Chandas' or prosody; this is the only standard work on prosody in Canarese. Naugavurma's 'Cauvyauvalocana,' a comprehensive treatise on the rules of poetry. Naugavurma's Nigantoo, a Sanscrit-Canarese Vocabulary. Salwa's 'Rasaratnaucara,' a treatise on poetry and dramatic composition, professedly based on Naugavurma, Hemachandra, and others. Kesava's Shabdamanidarpana, or grammar of the Canarese language (literally 'jewel-mirror of words'); this is complete and authoritative and is the only true standard work not merely for the ancient Canarese language, but also for all the niceties of the present form. Kesava or Kesirajah may perhaps be placed about 1170 A.D. He was the son of Mallicarjoona. His mother was the daughter of a poet called Somanobauna, a teacher among some Cshatriya people of the Yadava race. He himself was a poet as well as a grammarian. There were grammars before the Shabdamanidarpana, but not of a comprehensive nature. To some extent Kesava consulted Paniny's Sanscrit grammar. The principal commentator of this work is named Nishtoorasanjayya. The following words have been added by some scholiast at the end of each chapter:—"It is an arrow for doubts concerning the words sprung from the minds of persons versed in grammar: agreeable and well-read persons approach it; it is free from deficiencies, and has been composed by the excellent poet Kesirajah who is a teacher to instruct in the characteristics of Canarese." Besides the Shabdamanidarpana Kesava wrote: a 'Cholapaulacacharitra' or history of the Chola kings; a 'Prabodhachandra' or moon of knowledge, a philosophical treatise; and a 'Soobadraharna' and a 'Kirauta,' these two being books on Pooranic tales. Among his predecessors in the art of poetry Kesava mentions the following ten:—Gajaga, Goonanandy, Manasija, Asaga, Chandrabhatta, Goonavurma, Shreevijaya, Honna, Hampa, and Soojanotamsa. The work of these and others he made the basis of his own treatise. Devottama's 'Naunaurtaratnaucara' i.e., a collection of Sanscrit words that have various meanings. A few sectarian works of the Jeinas are the following. Naugachandra's 'Jinamoonitanaya' (that is to say, 'O son of the Jeina sage'), these being the words with which each verse concludes; this is an exposition of virtue according to the Jeinas. 'Shastrasaura,' propounding Jeinas views opposed to Brahminism. Vrittavilausa's 'Dharmapareecshah,' a confutation of Brahminical tenets. The two following are valuable commentaries. A commentary on the 'Amaracosha,' or Sanscrit vocabulary called 'Naucharajeeya.' A commentary on Halayoodha's dictionary, the 'Abidhaunaratnamaulah. (4) *Lingayets.*—The followers of the Lingayet sect have cultivated Canarese poetry to a very considerable extent. The following are Canarese Lingayet works. The 'Shataca' of Someshwara, who lived in the time of the Ballaula kings; it consists of moral reflections. Bheema's 'Basava Poorana,' a translation of a Sanscrit or Teloogoo work; it contains legends regarding Basava, minister of Bijjala king of Calyaunapoora on the Toongabudra and the founder of this sect. Viroopaucsha's 'Channabasava Poorana,' finished A.D. 1585

39. The remaining languages are occasional, or in other words sporadic. Hindostany, or the Deccany form of Hindostany, is the language of the Mussalmans of this Presidency; exclusive of the Moplahs whose language is Malayalam,

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it contains the legend of Channabasava, a near relation and fellow laborer of Basava's. Singiraja's 'Malabasava Poorana' much resembling the two preceding Pooranas; the date is about 1585 A.D. Tota Arya's 'Shabdamanjary,' or vocabulary of 'tadbhavas' (words assimilated from Sanscrit) and old Canarese words. Linga's 'Kabbigarakeipidy,' (the poet's vade mecum) a vocabulary. Kavibomma's Chatooranjyanighantoo,' another vocabulary. Chikkananjesa's story of the poet Raghava, who died before 1369 A.D. 'Prabhoolingaleeley,' author uncertain, being the legend of Alamaprabhoo, a principal teacher in Basava's time. 'Prowdharajakathay,' i.e., stories told to king Prowdha of Vijianugger, to convince him of the truth of Lingavantism; the author was Adrisha, son of Annappa of Collapoora. 'Akandeshwaravachana,' a treatise setting forth the specific Lingayet tenets and ceremonies; it is also called the 'Shatstalavichaurana,' (observances under six topics): six was a sacred number with the Lingayets. The 'Brahmottarakhanda' of the 'Scandapoorana'; tales of Shiva, translated from the Sanscrit after the time of the poet Raghava. Shadacsharideva's Rajashekharavilausa,' i.e., a legend regarding some episodes in the life of the Chola king Rajashekhara, finished A.D. 1657. This author stands probably the highest among Canarese poets. His diction however is somewhat too flowery and verbose. The language is difficult, but a model of exactness. (5) *Sheiva works.*—The following are Sheiva works, the authors being probably Brahmins of the Aradhya or lingam-wearing sect. 'Bhactirasauyana,' by Sahajaunanda, religious poetry. 'Anoobhavaumrita,' by Shreeranga a pupil of the preceding, being a popular treatise on Vedantist philosophy. 'Chidanandaunoobhavasaura,' by Chidananda; on Vedantism. 'Nyaunasindhoo,' a Vedantist treatise by Chidanandauvadhoota pupil of the preceding. 'Vivaicachintaumany,' by Nijagoonashivayogy, on matters regarding the Nigama and Augama doctrines. Sarvajna's 'Padas'; aphorisms. Mangaraja's 'Nigantoo,' or dictionary. Eeswararavy's 'Kavijihvaubandana, a treatise on metrics. (6) *Veishnava works.*—The Veishnava works are of comparatively little interest, as with the exception of the 'Dausarapadas' they are mere translations of, or free extracts from, Pooranic works. The principal are the following. Jeiminy's 'Bhaurata,' translated by Lacshmeesha, son of Annama of the Bharadwaja family living in Devanoor, a town of Mysore, professes to be a translation of the 'Ashwamedhaparva' or horse sacrifice chapter of a work by Jeiminy Moony; that sage is supposed to have given this description of Dharmaraja's horse sacrifice to king Janamejaya; a very classical work. The 'Mahabharat,' ten chapters of that work translated by Coomauravyausa; this work is not very classical. The 'Ramayana,' translated by a Brahmin under the assumed name of Comauravalmeeky; the same remark applies to this. The 'Bhagavata Poorana' translated by Chautoovittalanauta. 'Jaganautavijaya' by Roodra, containing stories in honor of Krishna, taken from the Vishnoopoorana. 'Krishnaleelabhyoodaya,' taken from the Bhagavata Poorana, by Vencaya Arya; a similar work. 'Haribactirasauyana,' by Chidananda; a philosophical treatise. The 'Dausarapadas' popular songs by 'Krishna's servants' in honor of their master; the authors are various. 'Krishna charitra,' or history of Krishna, by Canacadausa. Among Canarese prose works may be mentioned the translations of the Sanscrit 'Punchatantram,' 'Betaulapanchavimshaty' and 'Hamsavimshaty,' and a series of tales about 'Ramakrishna of Tenally.' (7) *Works by foreigners.*—Works by foreigners are 'Carnautaca-English' and 'English-Carnautaca' Dictionaries, by the Rev. W. Reeve, published at Madras in 1832, of which the former has since been revised by the Rev. D. Sanderson; 'An Elementary Grammar of the Cannada or Canarese Language,' by the Rev. T. Hodson, published at Bangalore in 1864; an 'English-Canarese' Dictionary by Mr. John Garrett, Director of Public Instruction in Mysore, published at Bangalore in 1865; and a 'Sketch of old Canarese Grammar in Canarese' by the Rev. G. Würth, published in 1866. A new Canarese-English Dictionary is in preparation by the Rev. F. Kittel of Mercara, the Editor of the 'Shabdamanidarpana' and 'Naugavurma's Chandas.' (8) MALAYALAM.—The oldest written remains of the Malayalam language are inscriptions on copper. Next in antiquity comes the Ramacharitra. The bulk of the other great classical poems, the translated Ramayana, Mahabharat and the Pooranas are the work of Toonchatta Ramaunooja, generally known as Toonchatta Ezhoottatchan, who was born about 1580 at Tricandiyore some twenty-five miles south-east of Calicut. Malayalam poetical literature is divided into two great classes, the first intended merely for general reading, and the second for special purposes. Under the first head comes the class of poems commonly called Kilipautt (or "Parrot-song") so called from its introductory invocation to the bird of the goddess of learning. The Manipravaulam Shlocas are also included under the first head. "Manipravaulam" means a string of gems, and this style of poem receives the name from being composed in a mixture of Malayalam and Sanscrit. The second class of poems includes the "Toollals" (literally Dances) which are generally sung to the accompaniment of music, pantomime and dancing. The North Malabar Teeyar use these at marriage and other festive processions. The first and most distinguished writer of Toollals was Kalakatt Cooncha Numbiyaur, a native of Killoocoorishimangalam near Lukkidy. The Toollals are as a rule based upon episodes of the Bhaurata and Ramayana. They are divided into three classes, namely, the Wottam, the Seetancan and the Parayan; but as the poems of the Wottam kind predominate, all such poems including those of the other classes are generally known as Wottam Toollals. The Wottam Toollal, as the name indicates (Wottam meaning 'running') consists of a variety of rapid metres well suited for amusing narratives. The pure Wottam Toollals are more vigorous than the Seetancan, while the Parayan is the best adapted for the pathetic style. Of the Wottam the following poems are still popular in the Malayalam-speaking provinces of Southern India:—Kirautam, Kaurtaveeryarjoonavijavyam, Nalacharitam, Dhroovacharitam, Hitambavadham, Bakavadham, Krimeeravadham, Soobhadraharanam, Roocminiswayamvaram, Krishnarjoonavijayam, Ahalyamocsham, Lankamardhanam, Kalakeyavadham, Santaunagopaulam, Soondariswayambaram, &c. Of the Seetancan there are Krishnaleela Andacavadham, Calyaunasaugandhicam, Bauliyooddham, &c., and of the Parayan there are Dacshayaugam, Sabhapravesham, Coombhacarnavadham, Gajendramocsham, Poolindimocsham, Nalauyanicharitam, &c. The first nine of the Wottam Toollals in the above list and the four Seetancans are by Cooncha Numbiyaur. Next in order of merit to Cooncha Numbiyaur is Ampauyatt Panicar, a native of Ponnany, who is the author of the Krishnarjoonavijayam and the two following in the above list. It is worthy of remark that the Toollals form a piece of poetry of which the other Dravidian dialects do not appear to possess specimens. The other subdivisions of the second class of Malayalam poetical literature are Tiroovautirapautt and Amaunapautt and Katakaly (Drama). Of these, in the first, Toonchatta Ezhoottatchan is preeminent; in the second, one of the Rajahs of the now extinct dynasty of Cottauracaur, who lived some two centuries ago. The poems called Tiroovautirapautt are sung by native women who standing in a circle mark the rhythm by clapping the hands and by motions of the feet. The metres in most cases are formed upon the Sanscrit metres. The most famous of these classes of poems are Toonchatta Ezhoottatchan's work in twenty-four different metres (hence called "Iroovattnaulvrittam" or "the Twenty-four Metres") which has for its subject the history of Rama. There is an imitation of this work by Cooncha Numbiyaur, which has the same name, but deals with the history of Krishna as contained in the Bhaugavatam. But the most famous work of this kind is the "Patinaulvrittam," or the Fourteen Metres), a poem in fourteen different metres on Krishna's embassy to Dooryodhana, part of the Mahabharat. Other well-known works are Tiroovay Vurman Tumby's in twelve metres and ten metres respectively. The Cottauracaur Rajah above mentioned was the first Malayalam dramatic writer. His works are eight plays based upon the Ramayana. Rama Vurmah, a renowned Maharajah of Travancore who reigned from 1758 to 1798, was the author of seven dramatic plays based upon the Bhauratam. K. Raghava Numbiyaur (a relation of Cooncha Numbiyaur) who lived about 100 years since translated the Shacoontalah of Calidass. This version is divided into six parts, each for one night. Kallecoolangara Raghava Pishaurady of Palghaut, who was a dramatic writer and contemporary with K. Raghava Numbiyaur, is supposed by a few to be the author of the Punchatantram and the Chanakya Sootram, while the authorship of the first is attributed by some to the celebrated Cooncha Numbiyaur. Of classical prose literature, the Malayalam language cannot be said to possess any beyond the Keralolputty, a short and very obscure chronicle of the earlier history of Malabar. Of works by foreigners the best are those by Dr. Gundert whose Dictionary and Grammar (Malayala Bhasha Vyaucaranam) afford valuable help in the study of the language. The latter work is in Malayalam, with English headings. Gundert and Garthwaite's

and of the Lubbays whose language is Tamul. There are in some districts immigrant Mussalmans who have forgotten Hindostany, and there are a few immigrants other than Mussalmans who speak Hindostany as their native language;

Diglott Grammar (Malayalam with an English translation) is a standard school-book. There is an English-Malayalam Dictionary by Bailey, and Grammars by Peet and by Spring; but these are not as useful as they might be. Gundert's Keralpazhayama, a history of the Portuguese days on the western coast, is a very interesting work in a good style. There is a large Christian literature in Malayalam, both Protestant and Roman Catholic. The Mission of the latter church has a press at Veerapoly in Travancore from which a number of works have been issued, both secular and religious. The Church Mission Press at Cottayam and the Basel Mission Press at Mangalore have published editions of the Bible, dictionaries, grammars, school-books, tracts, religious magazines, and works of general literature. The style of the Malayalam tracts published by the latter is superior to that of most Vernacular tracts. Besides the written literature there exists in Malayalam a large number of Folk-songs. A not inconsiderable collection of these has been made by the Basel Mission in Malabar. Dr. Gundert has given a specimen in his "Kelappa of the Garden," a Malayalam Romance and the Rev. Mr. Diez has given another in his "Gottesurtheil." Such popular ballads and romances are sung everywhere in the Malayalam country by boatmen and fishermen, by palanquin-bearers and labourers, by the women who plant and harvest the rice, and in fact by people of all castes and creeds. Much is improvised, but many songs are handed down orally from generation to generation. In Malabar particularly there are many popular ballads sung which refer to historical occurrences, such as the capture and destruction of the Chauliam fort near the Beypore river (1571); the first instance of capitulation on the part of the Portuguese in India; and the history of the great pirate-chief Coonyauly, of Cottacal north of Calicut, whose stronghold was stormed by the Portuguese in alliance with certain Nayar chiefs (1599). This Folk-song poetry is national in character and is specially popular with the uncultivated masses; but even Nayars have distinguished themselves in this form of composition. As to form, the Folk-song poetry is quite inartificial; as to metre, very unrestricted; and as to language, as simple as possible, with but little change from that of ordinary life. Sanscrit words occur only in the corrupted forms given them by the uneducated. The story developes itself slowly, in order that the hearer may not lose the thread. Nevertheless in the choice of the subject-matter and in the treatment, unmistakable poetic genius makes itself felt. (9) Tooloo.—This can hardly be said to possess any literature beyond a translation of the Bible, &c. There is "A grammar of the Tooloo language," by J. Brigel, published at Mangalore, in 1872, and a dictionary by Rev. J. F. A. Männar is nearly ready. (10) Codagoo or Coorg.—This has no literature. Mr. R. A. Cole has published "An elementary grammar of the Coorg language," at Bangalore, in 1867. The Rev. A. Graeter has published an "Outline of Coorg grammar, with Coorg songs," at Mangalore, in 1870. (11) Hill-tribe Languages.—Todah, Kotah, and Badagah have no literature. The Gospel of St. Luke has been translated into Badagah and lithographed at Mangalore (1852).

[17] View of the Kolarian Family of Languages.—The nine principal languages of the group lately called Kolarian are:—Santaulee, Moondauree, Ho, Bhoomij, Korwa, Kharria, Juang, Koorkoo, and Sowrah. Some of these are distinguished from each other merely by dialectal differences. This group has both the cerebral and dental letters. It has aspirated forms which did not belong to early Dravidian. It contains a set of four sounds, perhaps peculiar to Santaulee, which have been called semi-consonants, as when followed by a vowel they become respectively g, j, d, and b. The gender of nouns is animate and inanimate, and is distinguished by a difference of pronouns, by a difference of suffix of a qualifying noun in the genitive relation (a noun in the genitive relation having a different sign according as the noun on which it depends is animate or inanimate), and by a variation for gender in the verb. As instances of the variation of gender in the genitive suffix, there is in Santaulee (in-ren-hopon) = 'my son,' but (in-ak-orak) = 'my house.' There is no distinction of sex in the pronouns, but only a distinction for the grammatical animate and inanimate genders. Of the demonstrative pronouns in Santaulee, seven end in (i) for the animate, and seven in (a) for the inanimate gender. Most of the dialects use a short form of the third personal pronoun suffixed to denote the number, dual and plural, of the noun; and short forms of all the personal pronouns are added to the verb in certain positions to express both number and person, and as regards both subject and object, if of the animate gender. The inanimate gender is indicated in the latter case by the omission of these suffixes. The genitive of the personal pronouns is used for the possessive, which again takes all the post-positions; the genitive being thus indicated by the same suffix twice repeated. These languages agree with the Dravidian in having inclusive and exclusive forms for the plural of the first personal pronoun, in using a relative participle instead of a relative pronoun, in the position of the governing word, and in the possession of a true casual form of the verb. They have a dual, which the Dravidians have not; but they have no negative voice, which the Dravidians possess. Counting is by twenties, instead of by tens as in the Dravidian. Another peculiar characteristic of the Kolarian group is that there are two forms for each tense. In Santaulee (which may be taken as the representative language of the group) these two forms represent the different relations of the objects to the verb; thus (ti-e-tiar-ad-in-a) = 'he stretched the hand towards me;' (tanga-e-rech-ked-in-a) = 'he took the axe from me.' In these examples (ad) and (ked) are two different forms of the recent past tense, and the pronoun (in) or 'me' is incorporated with the verb. In Ho and Moondauree the two sets of tense forms are explained in a different way, namely as serving to distinguish a transitive from an intransitive verb, a distinction not made in Santaulee. Kolarian grammar does not actually recognize the root-changes of the Dravidian, but on the other hand derivative forms are occasionally indicated by infixes as opposed to affixes; thus in Santaulee a noun may be formed by infixing t, p, or n with the same vowel as that of the root; e.g. (ra-pa-j) = 'a collection of kings'—from (raj) 'a king;' (u-nu-m ='immersion'—from (um) 'to bathe.' The reciprocal active voice is formed in a similar manner by the insertion of 'p'; thus (da-pa-l = 'strike one another'—from (dal) 'to strike.' Besides its numerous tenses and participles, the Santaulee verb has four voices and several moods, and every voice has four forms. The other dialects apparently have not so many verbal forms as the Santaulee, but most of them are alike in regard to the main features of their grammar. A comparison between the Kolarian Sowrah and Gadabah and the Dravidian Tamul and Teloogoo gives numerous similarities of very primitive forms or words. The resemblances with Tamul are the most important, because within known times there has been no contact between the two languages, and Tamul is also the representative of the Dravidian group. The Gadabah numerals are identical with the Teloogoo.

[18] Particulars of existing Kolarian Languages of the Presidency.—Surrounded by races speaking pracritic and Dravidian languages is found a small Kolarian tribe, speaking a distinct language. They are known as Sowrahs, and are the Suari of Pliny and the Sabaræ of Ptolemy. Their country is on the west and back of the Mahendra mountain in the Ganjam district. They number about eighteen hundred and dress in leaves, though they have acquired some small civilization from the Ooriyahs and Teloogoos. They are quiet and industrious, and live in villages. There are some wilder members of the family in the hills. Of their language little is known beyond vocabularies. The tribe of Gadabahs inhabit the eastern portion of Bustar in the Central Provinces, and Jeypore and the Guddapore highlands of Ganjam in this Presidency. Their language is also Kolarian. Some of the words are identical with words of the Koorkoo, Kole, and Santaulee languages. They are connected with another tribe called Kerang-Caupoos, who speak the same language. Vocabularies of Sowrah and Gadabah are given in Vol. II, App. XXVI.

[19] Particulars of the Ooriyah Language.—Ooriyah is chiefly spoken in the districts of Orissa in Bengal and Ganjam in this Presidency, but the language is by no means confined to them, and extends over a much wider area of country than is usually supposed. Owing, however, to the countries in which Ooriyah is spoken being under the rule of three separate Governments, viz., Bengal, Madras, and the Central Provinces, the limits of the language have never been exactly ascertained. Its spoken area is irregular in shape, and extends in one line along the sea-coast from Midnapore in Bengal to Barwah, a small seaport town in Ganjam, a distance of 350 miles. From this point the language strikes inwards, leaving the sea-board to Teloogoo, and continues to penetrate deeper inland, the farther it proceeds south, until it reaches its extreme limit amongst the Maliahs of Jeypore in the district of Vizagapatam. The language

but these are unimportant in number[20]. Concanee has three dialects; the northern, that of the Goa territory, and that of a particular class of the inhabitants of South Canara. The first requires no notice here. The second, known as Goadeshee or Gomantakee, is illustrated by a large literature formed by the Jesuits; this literature is three hundred years old. The third is spoken by the Roman Catholic community of Mangalore. This third dialect has no literature; but great linguistic interest, as displaying the action of the Dravidian languages of the coast, the Malayalam and Tooloo, not only on the phonetics but also on the vocabulary of the pracritic language. A form of the Roman character is used in Concanee, introduced by the Jesuits, somewhat on the system of the standard alphabet by Lepsius mentioned elsewhere. The great majority of those who speak

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then runs northwards as far as Ryeghur in the Central Provinces, and may be said to cease about half way between Sumbulpore and Raupore. The Ooriyah-speaking tract of country resembles a quadrilateral figure of four unequal sides, and contains an approximate area of 60,000 square miles. Amidst the mountainous tracts however of the ancient kingdom of Orissa dwell the wild tribes of Koles, Gonds, Khonds, and Sowrahs who each speak a language of their own. Their numbers must therefore be deducted in estimating the Ooriyah population. The names are appended of the different districts in which Ooriyah is spoken:—in the Bengal Presidency—Midnapore, Balasore, Cuttack, Pooree, and the 29 Tributary States of Orissa; in the Central Provinces—Sumbulpore; in this Presidency Ganjam, and Jeypore in Vizagapatam. Deducting the probable population of the wild hill tribes, there is found to be a total Ooriyah population of about eight millions, without reckoning the Ooriyahs of Calcutta and Chota Nagpore. The wildness and inaccessibility of the greater part of the country in which the Ooriyahs live will doubtless account for the backwardness of its inhabitants; and the small share of attention which their language has hitherto attracted is rather due to this fact, than to the want of any intrinsic merits of its own. The Ooriyah language is definitely bounded north of Midnapore by Bengalee, on the south by Teloogoo, and on the west by Hindostany. Its distinctive peculiarity is the frequent occurrence of the "o" sound, which gives it an accidental resemblance to Italian or Spanish, although this resemblance goes no further. The practice of representing the first letter of the Ooriyah alphabet by the English letter "a" is however calculated to convey an erroneous impression of this peculiarity. The first vowel should therefore be invariably rendered by the letter "o" pronounced short. Ooriyah is not a difficult language to learn, but its character is probably the most complicated in India. On the other hand its alphabet is very complete and resembles the Sanscrit. The language is an ancient one, and its literature by no means inconsiderable. Most of its works however seem to be identical with the corresponding works in Sanscrit, and cannot therefore lay claim to originality. The purest Ooriyah is spoken in Goomsoor, and north of the Rooshcoolya river; as owing to Bengalee being the official language in Orissa and having a considerable affinity to Ooriyah, the latter approximated to it more than to Teloogoo in the south. The most esteemed author amongst the Ooriyahs, Oopendro Bhondzo, was a Rajah of Goomsoor. Although local differences of speech and writing exist, it may be taken for granted that pure Ooriyah is generally understood throughout the whole of the ancient kingdom of Orissa. Ooriyah is the language into which Khond and Sowrah are translated, when evidence in either of those languages is given in courts of justice.

[20] Sketch Account of the Hindostany language prevailing in Southern India, sometimes called Deccanee.—*Deccanee a dialect of the Oordoo branch of Hindostany.*—The Hindostany language proper comprises two branches, Hindee and Oordoo. The Hindee is the original language derived from the Sanscrit and written in the Nagaree character. It contains no Persian or Arabic words. It is often spoken of as the "Khary Boly" or "pure language." The Oordoo was formed from it by the Mussalman rulers of India by the admixture of Persian and Arabic words. This is the language used by the Mussalmans throughout India, and is written in the Persian character. Oordoo originated in the twelfth century in the vicinity of Delhi. There the Braj pracrit or Sanscritic dialect comes into contact with Marwarree and Punjaubee; and there, from the fusion of the foreign languages of the Muslim invaders with the speeches of the surrounding populations grew up the new style. As regards grammar it is in the main Braj, though intermixed with Punjaubee and Marwarree forms. As regards vocabulary it is partly indigenous Hindee, and partly foreign Arabic and Persian. Both the above branches of Hindostany are used in the north and centre of the Indian peninsula; the Hindee by the Hindoos and the Oordoo by the Mussalmans. In Southern India Hindee is not spoken at all; its place being taken by Mahrattee and the Dravidian languages. When the Mussalmans penetrated into the Deccan they brought their Oordoo speech with them. But during the sixteenth and seventeenth centuries the Mussalman kingdoms of the Deccan were isolated from, and often in hostility to, the Moghul Empire of Delhi. The Oordoo of the southern Mussalmans thus itself underwent modifications and corruptions, and became what is known as the Deccanee dialect of Oordoo; prevailing over the Madras Presidency and in a part of the Bombay Presidency. As there is no Hindee in this Presidency, it comes about that the general term Hindostany is used there as synonymous with Oordoo. (2) *Analysis of Deccanee.*—The majority of the Madras Mussalman sepoys speak a mixed patois, their language being corrupted by communications with the Tamul and Teloogoo soldiers, who outnumber the Mussalman in regimental bodies by three to one. In the Madras cavalry however, where the Mussalmans are not intermixed with Hindoos, good Deccanee is spoken. The grammar of pure Deccanee differs in two points from that pertaining to Oordoo, viz., in its rejection of the part of speech styled the 'casus agentis' and of the relative and correlative pronouns "جو jo" and "سو so." This difference is the result of the contact of Oordoo with the Dravidian languages—Teloogoo and Tamul. The 'casus agentis' came originally from the Marwarree Boly. It denotes the "worker" by whom or by which the action expressed by the verb is wrought. It is distinguished by the casal affix "نے ne." This case is only employed with those tenses of the active voice which are formed with the past participle. Deccanee employs the simple construction of the active verb in concord with its subject which is used in the uninflected nominative form. Oordoo expresses relation by two distinct clauses headed respectively by the relative and correlative pronouns "جو jo" and "سو so." This Sanscrit word "سو" displaced the old Hindee word تون ton and is itself disappearing before the growing use of the demonstrative pronoun وہ wuh. The Persian word "کہ that" also often takes the place of "جو jo," but both these latter constructions are not infrequent in Deccanee. The special peculiarity of Deccanee is its use of the correlative "سو so." Tamul and the other vernaculars of Southern India do not possess a distinct relative pronoun: it is inherent in the relative participle, of which there are three forms indicating respectively past, present and future time. The Mussalmans of Southern India have adopted this construction by suppression of the relative pronoun "جو jo" and by a modified use of the correlative "سو so." They affix it either to a verbal participle, or to a verbal tense or to a whole sentence which then respectively become relative attributes of the substantive immediately following "سو so" and the case of this substantive is determined by the syntactical position it holds in the secondary or dependent clause. For the sentence "Bring the book you bought yesterday," the two following versions can be compared:—Oordoo—جو کتاب تم کل مول لئے اسکو لاو jo kitab tum kal mol liyé, usko laó. Deccanee—تم کل مو لئے سو کتاب کو لاو tum kal mol liyé so kitab ko laó. The Tamul or Deccanee construction here appears preferable with a view to simplicity and conciseness. (3) *Prevalence.*—The Madras Mahomedan newspapers are published in Oordoo, but Deccanee still holds its ground in common usage. No educated native of this Presidency employs Oordoo in his private correspondence or in the transaction of ordinary business.

Mahrattee are to be found in one district, South Canara. The Concany dialect of Mahrattee is the house language of the Goanese Christians, the Saraswat Brahmins, the Concany Brahmins, some Deshast Brahmins, and some thirty other castes. These people are old settlers in South Canara. In Tanjore, North Arcot, and Salem those who speak this language are probably pure Mahrattas. The first of these districts is an old Mahratta state, and in all three there are many Mahratta peons and police besides the Mahratta Brahmins in Government employ. In most of the other districts the proportion of the sexes suggests that the majority of the Mahratta-speaking people are recent immigrants. Lumbaudee is the speech of tribes of gipsy carriers, whose dialect is a mixture of many languages. They are called indifferently Lumbaudy and Brinjarry in this Presidency, and as a rule they claim a Mahratta origin. The Lauda is believed to be a Lumbaudy variety. Those who speak Goozerattee are for the most part merchants, sowcars, and their followers, settled in the various districts. They are most numerous in Malabar and Tinnevelly, two seaboard districts. Putnool is a dialect of Goozerattee. The Putnools are by trade silk-weavers as the name implies. The above languages are all more or less pracrits by structure. English, French, Dutch, Portuguese, and Spanish are, or have been, the languages of the ruling classes at different points of history. English has been largely adopted by the natives themselves, and to a much greater extent than in Northern India; owing probably to the difficulty of the Dravidian languages, which has precluded foreigners from attaining them. Dutch has almost wholly died out, and has ceased to be spoken even by descendants of Dutch colonists; while Portuguese has laid firm hold of the soil, wherever that nation has settled. Italian is spoken by the Roman Catholic priests coming from Italy. Armenian and Chinese are spoken. Arabic is the religious language of the Mahomedans. Persian is among the Mahomedans the language of culture, and was till lately the language of the court. The dead languages need not be mentioned.

40. Caste.—The social segregations which go by the name of caste have been found as a common attribute of humanity in all ages and in all countries. A general name for them in European languages has been invented however only within the last four centuries, and that name was first applied in Southern India. When the Portuguese began to trade with Southern India at the end of the fifteenth century, they found among the natives of the country and especially on the West Coast, more marked examples of this description of social distinction than any to which they had before been accustomed. The subject presented itself to them chiefly with regard to questions of the sub-division of labor, various classes of the community being addicted hereditarily to the same pursuits; but they also recognized that in some cases the distinction arose merely from differences of stock or race. They applied to these divisions of society the term 'casta,' a Portuguese and Spanish word meaning 'breed.' The word has now passed into the majority of European languages, to indicate not only all the Indian social distinctions, but some also of the European. Though the caste system which goes by the name of the Indian was in a measure introduced into Southern India as a result of the Aryan colonization [21], it cannot be said that Southern India has been at all backward in

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[21] Sketch History of Caste as applied to Southern India—*Introduction.*—The Dravidian conception of caste distinctions, as far as the term has any meaning among that people, is first tribe and not a large one; and secondly within the tribe, occupation. This is the natural conception of a people secure in their own institutions. The Aryan conception appears merely philosophical and speculative from the point of view of this country; but it was also practical from the point of view of its origin, when constructed by a people advancing into a strange region. It was a large sentiment, developed by a powerful race. The Aryan view of caste was primarily that of blood; and consisted of first a tribe comprising the whole Aryan community, secondly those with whom they were in intimate connection, and thirdly those who were without their sphere of cognizance. Among the first-named, ancient distinctions of occupation were preserved; namely of priests, warriors, and utilitarian classes. From this entire view arose five Aryan divisions; Brahmins, Cshatriyas, Veisyas, Shoodras, and out-castes. South Indian caste is a combination of the above-mentioned two main classifications, the Dravidian and the Aryan; and it is difficult if not impossible at the present moment to say where one has ended and the other has begun. The history of the Aryan or foreign system will be considered first. (2) *The first Aryan division.*—The Aryan system of caste was not the growth of a single age, or even of a few centuries. Though religious and social distinctions were known among the Aryans from their entrance into India, caste in the present constructive sense of the term certainly did not then exist among them. The Brahmin was the utterer or conductor of brahma or prayer; the Rajanya or prince, and the Cshatriya or representative of executive power, were the dispensers of the raj or government, and cshatra or authority; the Vishwa or Veisya was an ordinary householder. Rank and profession are seen in these distinctions. But they were founded on fitness, conventional understanding, and arrangement; and not on diverse generation from the body or substance of deity. As far as any religious pre-eminençe might be associated with them, they were not even exclusive. The highest persons in a religious point of view in the Aryan community were the Rishies, the poetical authors of their hymns; and these might belong either to kingly, priestly, or common families. The professions were more or

adopting it. Indeed the truth may be that in the forms in which it appears it belongs as much to the Dravidian as to the Aryan races. Caste received a check under the Booddhists, and has passed through many forms of development, but there is no less caste in one form or another at the present day than there was at

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less hereditary, but there was no special law for the Brahmins that a man must be born a Brahmin on two sides. The name Shoodra does not occur in the early parts of the collection of the Vedas; and it is by some stated that it belonged to a people first found by the Aryas on the banks of the Indus, and was afterwards given to other bodies of men placed in a similar position with regard to the dominant tribe. However it is assumed in these pages that there was in the Aryan system something answering to the Shoodra division, even before the Aryans entered India. Compare the fourfold classification of the ancient Greeks. Only the doctrine of caste impurity and defilement had not arisen at the time of the ancient Vedic collections. (3) *Progress of Brahminical ascendancy.*—It is in the derivative Vedas that the predominance of the Brahmin in sacrifice first begins authoritatively to appear. Custom was at the time of the arrangement of these Vedas preparing the way for the development of inter-Aryan Brahminical caste. In connection with the Atarva, the latest of the Vedic collections, the Indian people are obviously brought to notice as under the rule of an established hierarchy. The priest, particularly the priest of the Atarva class, is dominant in that work. In the Brahmanas, or earliest liturgical and rubrical directories and compilations of the legendary and speculation of the Brahmins, the progress of the Brahmins to power, and the gradual development of the Brahminical view of caste, receives some valuable incidental illustrations. The old Aranyacas and Oopanishads, which are founded on pantheism, or on dualism, are philosophically speaking unfavourable to caste; inasmuch as they treat of all the varieties of men and animals as merely developments of Brahma, which they use in the new sense of the universal self, soul, or spirit. Yet incidental references and legends in these works are sometimes not inconsistent with the claims of the Brahmins for pre-eminence. The Vedic Sootras, which are intermediate between the Brahmanas and the law books, show a marked growth in the development of Brahminical caste. And here it is to be observed that before this caste system could have ended in the complete ascendancy of the priestly class, the Cshatriyas and Veisyas must have undergone a long and slow process of degradation. It is said that Parshoorama exterminated the Cshatriya caste. The only extinction which happened to them however was that of gradual amalgamation with the races already in possession of the country. The Cshatriyas were allowed a form of marriage called "Gaundharva," or that of mutual agreement; and they were in the habit of celebrating another kind of marriage, "Raucshasa," when they had defeated their enemies, and claimed the women of aboriginal tribes as their legitimate spoil. Till a recent date the Rajpoots of the north-west, who murdered their female children to avoid the expenses of marriages, obtained low-caste women from a distance as wives for their young men. At any rate as the influence of the Brahmins extended they endeavoured, while fixing their own privileges, to circumscribe the duties of the warriors and the householders. (4) *Development of the Shoodra conception.*—At this stage the conception came into prominence of Hindoo and non-Hindoo, twice-born and once-born, Aryan and Shoodra. In fact the question of blood and race arose which soon effaced the minor question of inter-Aryan differences. The aboriginal inhabitants who conformed to the Brahminic law, received certain privileges, and were added to the fourth caste or constituted as a fourth caste, under the name of Shoodras. But on the other hand there was a broad line of distinction between them and the colonists. In the Sootras the Shoodra is plainly declared not to have the right of sacrifice enjoyed by the Brahmin, Cshatriya, and Veisya. The Shoodra is not to be invested with the sacred string. He has not like the higher Varnas the right of hearing, committing to memory, or reciting Vedic texts. The ancient Aryans were a white-complexioned people. The white-complexioned races exist in many parts of the world with difficulty. Their tendency is to die out and become extinct in tropical climates, and they would surely do so in India, if they did not take special precautions for preserving their own seclusion. The white Jews of Cochin are as fair in complexion to-day as were their ancestors who settled in the country very many centuries ago. The secret of their colour is that, instead of inter-marrying with the aboriginal races, they have constantly introduced new colonists from their own country. On the other hand as the Spaniards in their intercourse with Brazil, Mexico, and Peru adopted the practice of inter-marriage with the people of the country, so did the Portuguese in the more tropical India. The results in both these cases have been rapid deterioration and reversion to the type of the stronger race. In the Aryan colonization of India the strong race as regards vitality was the aboriginal people, and the weak race as regards vitality, were the fair-complexioned Aryans. The Aryan colonists perceived that if they were to preserve their supremacy, they must draw a distinct line between themselves and the brown and black races of the country. An ancient authority states that at first the Brahmins were white, the Cshatriyas red, the Veisyas yellow or brown, and the Shoodras black. The Sanscrit word for caste, varna, means colour. But these varieties did not form the primary conception, which was that of fair on the one side and dark on the other side. The repugnance of the white Aryan to the black races is abundantly shown in Vedic times. In the Rig Veda the God who destroyed the inhabitants and protected the Aryan colour is praised. The black skin is "the hated of Indra," and the sacrificer offers thanks for scattering the "slave bands of black descent." The black races are spoken of as "voiceless," "speech bereft," and "black sprung, servile hosts." The main principle of caste therefore as developed at this period and as it has since been retained with reference to the Brahminical order may be regarded as a measure instituted by the Aryan colonists to prevent that degeneration of their race which experience had shown to follow contact with the natives of the country. (5) *Definition of the four castes as thus arrived at.*—The following are the traditional distinctions between the four castes as thus arrived at. "a" The Brahmins, at the moment of creation, issued from the mouth of Brahma. Their business is reading and teaching the Vedas, and the performance of sacrifice for themselves and others. They are the chief of all created beings; the rest of mortals enjoy life through them. By their imprecations, they can destroy kings, with all their troops, and elephants, and pomps. Indra, when cursed by one of them, was hurled from his own heaven, and compelled to animate a cat. Hence, the Brahmin is to be treated with the most profound respect, even by kings. He is forbidden to live by service, but on alms; and it is incumbent upon virtuous men and kings to support him with liberality; and all ceremonies of religion involve feasts and presents to him. The first part of his life is to be devoted to an unremitting study of the Vedas. He is to perform servile offices for his preceptor, and beg from door to door. In the second quarter of his life, he lives with a wife, reads and teaches the Vedas, assists at sacrifices, and, 'clean and decent, his hair and beard clipped, his passions subdued, his mantle white, his body pure, with a staff and a copy of the Vedas in his hand, and bright golden rings in his ears,' he leads a studious and decorous life. The third quarter of his life he must spend in the woods, as an anchorite, clad in bark, without fire, wholly silent, and feeding on roots and fruits. In the last period he is freed from external forms and mortifications, and spends his time meditating on the divinity, until at length he quits the body, 'as a bird leaves the branch of a tree, at pleasure.' "b" The Cshatriya sprang from the arm of Brahma, and has something of a sacred character. It is stated that the sacerdotal order cannot prosper without the military, or the military without the sacerdotal; and the prosperity of both, as well in this world as in the next, is made to depend on their cordial union. The Cshatriya are to give alms, to sacrifice, to read the Vedas, and defend the people. Though Brahmins are to draw up and interpret laws, they are carefully excluded from administering them. The executive government is vested in the Cshatriyas alone. "c" The Veisya class sprang from the thigh of Brahma. Their duties are to keep cattle, carry on trade, lend on interest, cultivate the soil, and turn their attention to each description of practical knowledge. "d" The Shoodras came from the foot of Brahma. They are to serve the three superior classes, more especially the Brahmins. Their condition is never to be improved; they are not to accumulate property, and are unable by any means to approach the dignity of the higher classes. Entire submissiveness to the Brahmins is the spirit of a Shoodra's duties. Yet the Shoodras are never to be slaves, either public or private. (6) *The Dasyoos.*—Outside of the whole of this system lay those who whatever their race or language were not in contact with the Aryans, being called by the latter Dasyoos.

any time. Some writers regard Indian caste in the light of a disruption of society; others consider it the only method whereby the community under the special conditions of the country can be organized in detail, as in fact a system taking the place of those checks which in the West go by the name of honour, shame, and

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There is no evidence that there was any essential difference between Shoodras and Dasyoos. Certainly it is not to be supposed that India was then entirely homogeneous, and regarding the different original strata of the population very much has yet to be learnt. But India was in the main what would now be styled Dravidian or Kolarian, and there was no separate race who could be classed by themselves as Shoodras. In fact the Shoodra and out-caste represent more of civilization or less of it. Such is the view taken in these pages. The number of Dasyoos has gradually decreased during the different ages of history. At present they are represented by out-caste and hill tribes forming only a small portion of the population. (7) *Notices in the Sanscrit Epics regarding Caste.*—The Mahabharat contains a decided and poetical exaltation of caste, some historical traces of the manner in which it acquired its ultimate establishment, and theoretical speculations as to its origin. In the first section there is an account of the contest between the Brahmins and the Cshatriyas. The Nishaudas found by the Pandavas and Cooroos, on their going out to hunt, were so black in their skin and hair that the dogs began to bark at them, and were particularly keen in hearing. In the Bheeshmaparva occurs the well-known Bhagavatgeeta or Song-of-God, containing the discourse between Krishna and Arjoona. The respective duties and qualities of the Brahmin, Cshatriya, and Veisya, are declared here in the usual form. In the Carnaparva, it is mentioned that in the appointment of Carna to succeed Drona as general, Brahmins, Cshatriyas, Veisyas, and Shoodras were unanimous. In the same section the well known passage occurs :—" The Brahmins, according to the Srooty, were created by Brahma from his mouth; the Cshatriya from his arms; the Veisyas from his thighs; and the Shoodras from his feet." In the Shauntiparva the legendary respecting Parshoorama and the destruction of the Cshatriyas appears in a very extended form. The Ramayana has for object to celebrate, after a mythical or allegorical form, the advancement of the Aryan power and rites among the uncivilized tribes of the south of India. The opposition to this advancement is typified by a Racshasa or giant named Ravana, who carried off Seeta, the wife of Rama, the daughter of Swadhaja, the representative of the line of Janaca of Videha or Meitila. Brahmins, Cshatriyas, Veisyas, and Shoodras are often mentioned together, throughout this poem, as forming the recognized divisions of Hindoo society. The Cshatriyas formed the leaders of armies. The Ramayana mentions some of the aboriginal tribes of India with respect. Rama in an early stage of his wanderings near the Ganges met 'the virtuous Gooha, the beloved chief of the Nishaudas.' The forest tribes represented by Hanooman, Soogreeva, &c., were his great auxiliaries in his journey to Lunka. The Pallavas, Shaucas, Yavanas, Cambojas, Varvaras, Haritas, Kirautas, and Mlechas are spoken of as most valiant, though most impure, peoples, in the narrative of the contests between Vasishta and Vishwamitra in the first book. Rama called the chief of the twice-born (the Brahmins) to kindle the fire of the Homa, to repeat mantras, to scatter the Coosha grass, and to offer clarified butter to the fire, on the occasion of the instalment on the throne of the monkey Bauly, who did not recover from the wound of his arrow. The Epics, when critically viewed, are really the best sources of information respecting the working of caste influences and their extension and maintenance throughout India. (8) *Relations between Booddhism and Caste.*—Booddhism in its most important social aspect was a reaction against caste. Shakya Moony did not certainly in so many words oppose the state of matters religious and social which he found to exist in Indian society. But all classes of society, without any peculiar privilege from caste, were invited to join the orders which he established, with the full expectation of receiving their highest advantages. He disparaged and eschewed, though he did not directly condemn, a hereditary priesthood. His system gained a political importance, particularly through Asoca. It became indeed in Northern India more pre-eminent than that of the Brahmins in the eyes of the multitude, the Shramana or practiser of austerity taking the precedence of the Brahmana. Though a few Brahmins became Shakyás pupils, the Brahminical body soon appeared in opposition to him. His followers in their turn began to oppose the Brahmins, and ultimately placed themselves to them in an attitude of avowed hostility. The Jeinas, in Southern India, who were only Booddhist seceders, took the same view of caste as their speculative progenitors. (9) *Greek accounts of the divisions of the people.*—Megasthenes, as is well known, divides the population of India into seven principal divisions or classes (μέρη, a word which does not necessarily mean castes). These are those of the Philosophers, the Agriculturists, the Shepherds and Hunters, the Artizans, Hucksters and Bodily Labourers, the Warriors, the Inspectors, and the Counsellors and Assessors of the king. Those who have viewed these divisions as indicating castes, looked to either from a Brahminical or a Booddhist point of view, have been much perplexed with the classification. It is not reconcilable with any specific classification of castes noticed in the Indian literature, and represents the real occupational and to a great extent hereditary distinctions of the original inhabitants. In treating of the Philosophers, Megasthenes recognizes both the Brahmins and the Booddhist Shramanas. "Megasthenes," says Strabo, "divides the philosophers into two kinds, the Brachmanes and the Garmanes. The Brachmanes are held in greater repute, for they agree more exactly in their opinions." Respecting the Husbandmen, Megasthenes says :—" The second class is that of the Husbandmen, who are the most numerous and mildest, as they are exempted from military service and cultivate their land free from alarm. They do not resort to cities, either to transact public business, or take part in public tumults. It therefore frequently happens that at the same time, and in the same part of the country, one body of men are in battle array, and engaged in contests with the enemy, while others are ploughing or digging in security, leaving the soldiers to protect them. The whole of the territory belongs to the king. They cultivate it on the terms of receiving as wages, the fourth part of the produce." Respecting the Pastors and Hunters, he writes :—" The third class is that of the Pastors and Hunters, who alone are permitted to hunt, to breed cattle, to sell and to let out for hire beasts of burden. In return from freeing the country from wild beasts and birds, which infest sown fields, they receive an allowance of corn from the king. They lead a wandering life, and dwell in tents. No private person is allowed to keep a horse or an elephant. The possession of either one or the other is a royal privilege, and persons are appointed to take care of them." The distinction of cowherds, shepherds, and hunters, as separated from other portions of the Indian population, continues to the present day. Of the Artizans, Hucksters, and Labourers, Megasthenes thus writes :—" After the Hunters and the Shepherds, follows the fourth class, which consists of the Artizans, Hucksters, and Labourers. Some of these pay taxes and perform certain stated services. But the Armour-makers and Ship-builders receive wages from the king, for whom only they work. The General-in-chief furnishes the soldiers with arms, and the Admiral lets out ships for hire to those who undertake voyages and traffic as merchants." Of the Military, he says :—" The fifth class consists of fighting men who pass the time not employed in the field in idleness and drinking, and are maintained at the charge of the king. They are ready whenever they are wanted to march on an expedition, for they bring nothing of their own with them except their bodies." These troops, it is to be observed, were embodied as a standing army. It does not appear that in caste they were at all Cshatriyas. Of the ruling class, Megasthenes says :—" Of the Magistrates (Archons) some have the charge of the market, others of the city, others of the soldiery. Some have the care of the rivers, measure the land as in Egypt, and inspect the closed reservoirs from which water is distributed by canals, so that all may have an equal use of it. These persons have the charge also of the hunters, and have the power of rewarding or punishing those who merit either. They collect the taxes, and superintend the occupations connected with land, as wood-cutters, carpenters, workers in brass, and miners. They superintend the public roads and place a pillar at every ten stadia, to indicate the bye-ways and distances." The arrangements noticed by Megasthenes, respecting the governors of cities, are in accordance with modern observation. He states that they are divided into six Pentads (panchacas), or Committees-of-five, with very special duties attached to each pentad. The first pentad superintended the fabricative operations, being a sort of Committee of Public Works. The second had charge of the relief of strangers, the burial of the friendless dead, and the care of their property. The third took cognizance of births and deaths, with a view to revenue purposes. The fourth discharged the duties of the Bazaar-masters, attending to weights and measures, and doubling the tax when the

public opinion [22]. However much truth there may be in the former view, and whatever defects may be found by Europeans or may seem to them as such in this national organization, it would appear that nothing has yet been devised which will take its place. While the regulations of Government on the subject are tolerant and neutral, they recognize the existence of Indian caste; and the intelligence of the people themselves causes them to persevere in the only social system which is known to them. The minor changes which are observable from time to time at the surface of society may be neglected, and it may be asserted with much confidence that when caste is diminished in one direction it is increased in another.

41. Among the various elements which go towards constituting the distinctions of caste, the following are perhaps the principal; religion, locality, social compatibility or the reverse, birth, and occupation. Religious differences have never been sufficiently parallel with the differences of caste to serve as a basis of classification for the latter. On the other hand those who devised caste were at a very early date careful to associate it with sentiments of religion. Hence the situation at the present day is that there is an intimate general connection between caste and religion, while they exhibit a cross-division as regards the details of their arrangement. A Brahmin may indifferently worship Vishnoo or Shiva. A Sheiveite may be indifferently a Shoodra or a Pariah. There are cases, as for example that of the worshippers of Krishna, where a sect has developed a caste, and the two designations are in that case interchangeable; but in Southern India such instances are rare. Locality has undoubtedly on many occasions given its definition to a caste. As an example may be quoted the Cottay Vellaular, or Vellaular who live in the fort at Shreeveicoontam in Tinnevelly district; a caste completely isolated and completely localized. But as a general principle it is not so much the distinctive mark of caste as other principles. Social compatibility and its opposite is perhaps the most modern and is certainly at the present day one of the most distinctive of the attributes of caste. The rules divide themselves into rules for eating together and

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shopkeeper dealt in a variety of articles. The fifth took cognizance of manufactured articles and their sale, distinguishing old articles from new ones. The sixth collected the tenth of the price of the articles sold, inflicting death on parties guilty of fraud in this matter. Finally Megasthenes brings to notice two of the actual principles of modern caste:—"It is not permitted to contract marriage with a person of another caste (here γένος, which is the equivalent of jauty), nor to change from one profession or trade to another, nor for the same person to undertake more than one, except he is of the caste of philosophers, when permission is given on account of his dignity." The Brahminical caste term is here employed, but for all that there appears to be nothing here specified which may not have been strictly indigenous. All the above remarks are applicable to Southern India. (10) *Artizan guilds.*—The history of the right and left hand factions, and of the punchaular or five artizan trades, of Southern India, has yet to be ascertained; and when written will probably throw light on the whole question of South Indian caste. It is recorded in the Mahavanso that King Vijaya, landing in Ceylon 'on the day of the death of Booddha,' sent an embassy to Madura, which brought back a princess with 700 female attendants, and 'a train of men of eighteen different classes, and also five different classes of workmen.' The five classes here mentioned were the Punchaular. The eighteen classes must have been the eighteen sorts of people of the right-hand faction. The latter comprise, according to the usual classification, the four pure classes, viz., the Brahmins and others, the twelve mixed classes (Anooloma and Pratiloma), and the two bastard classes known as Coonda and Golaca. The Punchaular of the present day stand specially without the Hindoo pale, but in many ways put themselves on an equality with it. The Punchaular have been and even are still plainly polyandric, and they are the most aboriginal part of the population. They form the leading portion of the left-hand faction. (11) *Conclusion.*—The above very scanty remarks must suffice to introduce this subject until it is properly investigated. As regards the Brahminical part of the system, the Pooranas are still considered the great authorities on the subject; though doubtless in many instances a usage has been gradually established, especially by provincial prejudice, by the spread of sectarianism, by foreign conquest, and by national deterioration or the reverse, which is not altogether consistent with their teachings. As regards the Dravidian part of the system enough has been said to show clearly that the Aryan immigrants found ready-made a tribal separation and a rough system of trade guilds, upon which to graft their own caste system. The details of the tribal separation or of the hereditary handicrafts, as they were when the character of caste definition was first given to them, are wanting. But it is not impossible even now roughly to classify the castes of the great majority of the population by the occupation of the male members, and a century or two ago it would probably have been still easier. It is to be observed that in early times the present almost innumerable sub-divisions of castes did not exist, and that a large number are mere repetitions of castes in another tribe and language. Long separation and infrequent communication have led to insulation so complete that former union is forgotten, and intermarriage is prohibited. Another very large aggregate of the population has sprung from a few primary castes, merely because of local variations in the mode of labour.

[22] OPINION OF THE ABBÉ DUBOIS AS TO CASTE.—The French missionary of Mysore, the Abbé J. A. Dubois, than whom no European was ever better acquainted with this country, expresses himself as follows on the value of caste. The words are from the English translation, the original French manuscript not having been published:—"I have "heard many individuals, otherwise of great judgment, so full of the prejudices they had brought with them from "Europe, as to decide most erroneously (according to my opinion) on the subject of the division of the Hindoos into "castes. This distinction appeared to them, not only as not promoting the good of society, but also as ridiculous and "calculated merely to oppress the members of the state and to disunite them. For my part, having been in a situation "to observe the character of the Hindoos, and having lived amongst them for many years, as a brother and a friend, "I have formed an opinion upon this subject altogether opposite. I consider the institution of castes amongst the "Hindoo nations as the happiest effort of their legislation; and I am well convinced that if the people of India never "sunk into a state of barbarism, and if, when almost all Europe was plunged in that dreary gulf, India kept up her "head, preserved and extended the sciences, the arts and civilization; it is wholly to the distinction of castes that she "is indebted for that high celebrity."

rules for inter-marriage. Where there is a disability in either of these particulars, it is certain that there is a distinction of caste. The practical examples of this are as numerous as the main heads of castes themselves. The degree of the separation of the sub-divisions of these main heads is in proportion to the application and combination of those rules. The principle of birth must be regarded from two points of view. Taken to mean the immediate circumstances of the present day, it is true that birth is one of the distinguishing marks of caste. For a man is born into the caste of his mother, and there, except under extraordinary circumstances or except in the case of the lowest orders where his actions pass unnoticed, he must remain. If birth is taken however to imply original ethnical origin, the lapse of time and numerous accidents or occurrences which it is impossible now to analyse have left less of these distinctions remaining than is often supposed. Under the Brahminical system indeed, and at the commencement in Northern India, race formed the basis of caste. Caste in Sanscrit is 'varna' or colour, and the first aim of the institution as understood by the Aryans was to erect a barrier between themselves and the darker races whom they met. The race of the Cshatriyas and Veisyas however has almost if not entirely disappeared. The original Brahmin element introduced into the south must have been very small, and what there was has in the course of ages been almost absorbed into the population. Fair Brahmins do still remain, but they are rare in the south of India. As to the Dravidians themselves, the laws of inter-marriage between the castes have never been strict enough to prevent fusion of race. It must be stated then that whereas ethnical descent was originally the most distinct mark of caste it is now the least so. Occupation is perhaps at the present day the most distinguishing mark of all. This result, in the south of India especially, is not surprising. For the position of the Aryans in the south was little more than that of administrators, and they must to a great extent have confined themselves to developing that which they there found. In a laborious population such as that of the Dravidians, it is highly probable that there were guild institutions; and it would be on these that the Aryans would graft the caste laws to which they were attached. Indeed it is certain that this was the real origin of South Indian castes. When the Brahmins themselves and the wild tribes who have no caste are put on one side, the test of occupation is one of the first that occurs. It has been said above that social disabilities must also be reckoned; but these are more useful for distinguishing the minor sub-divisions. The future analysis of South Indian caste, and it must be admitted that the subject is still very indeterminate, will probably be based on a combination of the elements of occupation and compatibility or its opposite; neglecting the other elements which have been mentioned at the head of these remarks.

42. The Brahminical classification of caste rests not so much on analysis as on tradition. It consists first of a broad distinction between those who have caste, and those who have not. For those who have caste there is the division into the twice-born entitled to wear the sacred thread, namely the priesthood, the warrior or executive class, and the trading class; and the once-born not entitled to wear the sacred thread, namely the Shoodras or servile class. Those without caste are not arranged.

43. The popular view is of a more practical nature. It first places the Brahmins in a class apart. It then divides the remainder into "Hindoos" or high caste, namely those who have adopted a compact civilization; and out-caste tribes, who lie outside that civilization. The term Shoodra is never used by those who are not Brahmins. How far the distinction between Hindoo and out-caste is a race distinction or arises out of the Brahminical organization is an unsolved problem. The view taken in these pages is that there was no such sharp distinction in former days, and that the difference originally was little else than tribal. But the fact may be otherwise. The high caste, called also "Tamulians" in the Tamul country, are classified to all intents and purposes by their occupation. These have however adopted many of the Brahminical doctrines of ceremonial and social disability, as a barrier between their numerous divisions and sub-divisions. The out-caste races are classified tribally, and are esteemed according to their qualities.

44. The remarks here given will arrange the population by compromise between the three views of classification just named; the philosophical, the tradi-

tional classification of the Brahmins, and the popular. And in deference to custom the classes will be placed in the opposite order to that in which they were placed in considering race. Brahmins will be specified first. Then such members of the population as regard themselves of Aryan Cshatriya descent. The trading classes will for convenience be put under a separate head corresponding to the Brahminical head of Veisya; but they are in no sense Aryan Veisyas, nor different in any way from the rest of the population whom Brahmins call Shoodras. The remainder of the Hindoo population will be considered under the following twelve heads, the order being in some sense that in which they are ranked in popular regard :— agricultural or cultivating castes; shepherd and pastoral castes; artisan castes; writer or accountant castes; weaver castes; agricultural servile castes, chiefly employed as labourers or dependents of the first-named; pot-making castes; mixed castes, chiefly of religious sects renouncing caste distinctions, and connected with temple service and worship; fishing and hunting castes; palm-cultivating castes; barber castes; and washerman castes. Next will be considered the pariah tribes. And lastly the hill and wandering tribes, who occupy a special position. The remarks in this place are necessarily brief, and a more extended notice will be found at page 225 of the second volume.

45. Brahmins hold beyond all comparison the first place in point of dignity, and are regarded by the other classes with spontaneous veneration. The bestowal of copious gifts upon a Brahmin, and his consequent benediction, are represented as considered to efface every sin. At marriages, funerals, and on other great festal occasions, the rich Hindoos strive to distinguish themselves by large donations to Brahmins, of cloth, cows, rice, gold, and whatever is esteemed most valuable. A man of consequence reckons it indispensable to keep near him one or more Brahmins to be his guides in the different emergencies of life. This caste, employed as priests, teachers, officials, lawyers, and clerks, numbers 1,122,070 in the whole Presidency, being a proportion on the total Hindoo population of 3·94 per cent. The district chiefly influenced by Brahmins is Tanjore, where also there are hardly any Pariahs. As regards actual proportionate numbers there are more Brahmins in South Canara than in any other district; being there thirteen per cent. of the Hindoo population. They are also numerous in Ganjam. The Marhatta Brahmins are the most intellectual, the Tamul Brahmins are the most numerous, and the Numboory Brahmins of the West Coast are the most anciently-settled and possessed of the most peculiar habits. The following are the percentages which Brahmins bear in the several Indian provinces to the total Hindoo population :— Bengal 6·06 per cent.; Madras 3·94 per cent.; Bombay 4·83 per cent.; North-West Provinces and Oudh 12·23 per cent.; Punjaub 11·60 per cent. From this it appears that the proportion of Brahmins is very much lower in Madras than in any of the other main provinces. Such sub-divisions as there are of the great Brahmin caste come most appropriately under the head of religion and philosophy. The Sheiva Brahmins who are mostly Tamul, are called by the title Ayyar; the principal sect of the Veishnava Brahmins who are mostly Teloogoo, are called by the title Ayyangar. The Brahmins have sub-divisions by families or clans according to origin; but these are obscure at the present day, and of not much practical significance.

46. The Cshatriyas, where they exist, rank high in public estimation; though they are inferior to the Brahmins. They wear the thread passing over the shoulder. The name signifies the holder of executive power; but this class are often styled Rajpoots which means 'sons of kings,' and implies a boast of their descent from ancient rajahs. Some zemindars, a few of the sepoys, and some small Teloogoo tribes claim the name. The ancestors of these either were Aryans, or adopted Aryan titles. They all come from the north, and the real aristocratic class of the south have native claims which are peculiar to themselves and are at any rate of much higher antiquity. The chief division of this caste is that of Bondilies from Bundelcund, and Bhatrauzooloo or minstrel attendants on great persons. The Bhatrauzooloo do not hold such a good position as the Bondilies. The Peiks, a military tribe of Vizagapatam, are classed as Cshatriyas; but are plainly aboriginal.

47. The so-called Veisyas will include the chief members of the trading community, such as Berichetty and Comaty Chetties, Vauniyar or oil-mongers, Putnoolcaurar or silk-dealers, Dausoos, Treivarnicooloo, Laudas, and Marwarries.

Banyans and Saits are the corresponding classes of Bengal and Bombay. The more important of these take to themselves the sacred thread, but the greater part do not. In fact, as above said, these are as much Shoodras in Southern India as those next to be named. The Vauniyar or oil-mongers are among the furthest removed from the original Veisya dignity, but they make the strongest claim to it.

48. This country is an agricultural country, and the agricultural castes are the most numerous and in many respects the most important. The superior agricultural population of the Presidency numbers considerably more than one-quarter of the whole Hindoo population. This group includes the Vellaular of the Chola kingdom, otherwise known as the mirassidars of the jagheer; the ryots of the Carnatic and the Cauvery delta; the Reddies, Caupoos and Velamas of the north; the Nayars of Malabar; the Bunts of South Canara; the Balijes or Cavarays of the Ceded Districts; and numerous other castes. The whole of these are sometimes generically called Vellaular, but this is quite a misapplication of the term. There is no one name for the entire class. The Tamul agriculturalists take usually the title of Moodelly, or chief man. The Yidayar with the progress of civilization have settled into other occupations; but were originally the pastoral portion of the nation. The word Yiday means "middle-class." These with the Vellaular last-named and the Cummaular next to be noticed formed the three-fold confederation of public labour in primitive times. They are now in Tamul districts usually styled Pillay. In Teloogoo districts they are called Gollar, which is a version of Gopaular or herdsmen. In some parts they take the ancient tribal name of Coorumbar. They compose about a twentieth part of the population, and they are most numerous in the Ceded Districts. They are both Veishnavite and Sheivite. In either case, as the hereditary tenders on the sacred cow, they are held in respect. The greater number of the artisans skilled in particular trades come under the head of Cummaular. A name equally general is that of Punchaular[23], as indicating the artisans of the five handicrafts concerned with gold, copper and brass, iron, wood, and stone. These artisan castes have always maintained an animated fight for precedence in Hindoo society; they frequently assume the thread of the twice-born, and sometimes even give themselves the title of Vishwa Brahmins. In the Teloogoo country they are known as Cumsaulies. Kanakar or accountants are, next to the priests and potails, the most influential members of village society. The position assigned to them has always been well-marked, their education and the nature of their labour having kept them distinct from other classes. There are no important sub-divisions of the caste. Throughout the Presidency the Kanakar are one, though known in Canara as Shanbogues and in Malabar as Adigauries. The original name is popularly transmuted into the word Curnum. Next after the cultivation of land and the subsidiary labours of

[23] SKETCH ACCOUNT OF THE PUNCHAULAR OF SOUTHERN INDIA.—The Punchaular are, as their name imports, artizans following five different trades; goldsmiths, blacksmiths, coppersmiths, carpenters, and masons. All of them in Southern India wear on occasion a thread like the Brahmins. In the dispute about precedency which constitutes the Valangay and Yidangay faction their hereditary chiefs lead the left hand side. Many southern towns are divided into separate quarters. In its own quarter each of these parties may perform its ceremonies in whatever manner it pleases, but it is not allowed to go into the adversary's quarters with any procession. A Punchaulan may follow any of the five arts that he pleases; but there are many divisions among them that prevent intermarriage. No man can marry a woman of a different nation; a Teloogoo Panchaulan for instance could not marry a woman of the Tamul country. Again a man cannot marry any woman of the same family with himself; and in order to prevent mistakes marriages are always made with families who are well known to each other. The men are allowed a plurality of wives, and the women continue to be marriageable after the age of puberty. Widows do and do not marry again. Some of these people eat animal food, others do not. They are allowed to drink intoxicating liquors. The deity peculiar to the caste is Caumautchiammaul, who is in the Brahminical system identified with Parvaty the wife of Shiva. The Punchaular frequently know how to read and write, and there is a book called Vishwa Poorana, which any of them may read, written in the vernacular languages. The Gooroos of the Punchaular are not Brahmins, but persons of the caste. They have mutts, or institutions half religious and half pertaining to the guild. The following table shows the names of the Punchaular in the different languages :—

English.	Tamul.	Teloogoo.	Canarese.	Malayalam.	Ooriyah.
Gold and silver smith.	Tattaun ...	Cumsauly ...	Acasaula ...	Tattaun ...	Soonary.
Brass and copper smith.	Cunnaun ..	Cuntsary ...	Canchoogaura ...	Moosauly ...	Consaury.
Ironsmith	Kollan	Cummary ...	Cummaura ...	Kollan	Lohauro.
Carpenter	Tutchan ...	Vadlangy ...	Badagy	Anshaury ...	Bodhye.
Stonemason	Culltutchan ...	Caulsevaudoo ...	Cullcootaca ...	Cullcutchan ...	Coommauro.

tending cattle and providing tools, utensils, dwellings, &c., for the population, arises the communal duty of providing clothing. This is undertaken by the Keikkilas or weavers. Weaving is, and formerly was to a much greater extent, the leading manufacture of this country. But competition with English goods has induced the majority of the members of this caste to turn to other occupations. The inferior agricultural population is that represented by the generic terms Vanniya and Pully. The terms are interchangeable. The Pullies are not to be confounded with the Pullar, an out-caste tribe. This second agricultural section numbers half of the first. Those who form it were once the predial slaves of the Vellaula landlords. They are now free labourers, and not unfrequently land-holders. The Vanniyar are a Tamul group, and there are hardly any of them to be found in the Teloogoo, Malayalam and Canarese countries. By the side of them, and not properly included among them, are the two great races of the Maravar and the Kullar of the south. Among the minor and less influential classes the foremost are the potters, and brick and tile makers. In the Tamul, Teloogoo, and Canarese districts they are known as Coosavar, Coommaras, and Coombaurar, respectively. Their labour is considered so important that the potter is always one of the village officials, and the caste is extensive. The caste is the same throughout the Presidency, and does not present the sub-divisions which confuse the other castes. They are perhaps domesticated members of the jungle race known as Cooravar, Coorumbar, &c., who have changed their occupation. The population classed as "mixed castes" in Government papers do not present much that is homogeneous in occupation. The Shataunies and the Lingayets are separate sectarian castes. The remainder in the group are temple servants, actors, dancers and mendicants. In strict theory the class of Shataunies have no caste qualification except a religious one. They profess to admit to their community any one who conforms to their religious views, and they are prepared to eat with any one who observes the same ritual as they do. But they have gradually becoming practically a caste, and they discourage intermarriage with those not born in their community. Aundy, Lingadhaury, and Pundauram are sects of Lingayets. Dausaries are Teloogoo Shoodra Veishnavites; being mendicants and assisting at domestic ceremonies. Byraghies are ascetics and mendicants from Northern India. Ochar, Ambalacaurar, Dausies, Naugavausooloo, and Veeramooshties are different classes of temple servants. The first, the Ochar, are the Poojarries or priests of the Mariyammen and similar temples. Dausies and Naugavausooloo are dancing-girls, and their families; temple servants and attendants. Nattoovar are the males belonging to them. Cootaudies are actors and dancers. Of the fishermen it may be noted that they are most numerous where they have least opportunity of carrying on their hereditary occupation, and they are least numerous in the coast districts. They are called on the west coast Moocwas, and in the Teloogoo districts Bestas and Boyies. The Parava fishermen of the Madura coast are mostly Roman Catholics by religion, having been converted by the Portuguese. The toddy-drawing castes according to their caste calling earn their livelihood from the produce of trees, but at the present day the great majority of them are ordinary cultivators. This group includes the Shaunaur of the Tamul country, the Teloogoo Yeedigas, the Malayalam Teeyar, and the Billawar and Haleypeiks of Canara. They are proportionately most numerous in Tinnevelly, South Canara and Malabar. In the latter district they number nearly half the total Hindoo population. The Barber caste needs no explanation. But it is distinct from all others. In Tamul the barbers are known as Ambattar, and in Teloogoo as Mangalas. The large caste of dhobies or washermen is called Vunnaur in Tamul, and Agasa in Canarese. In a country where cotton alone is worn they necessarily form a considerable portion of every community.

49. So little is known of the out-castes by the Hindoos generally that it is almost impossible to obtain at the present moment a trustworthy account of their organization. Yet it is certain that they have among themselves a caste system. Their hierophant class are called Valloovar. These tribes, whose Tamul name of Pariah has been adopted into European languages, are called Maulas in Teloogoo, Holeyar in Canarese, and Poolayar in Malayalam. They number in all some 16 per cent. of the population, being thus four times as numerous as the Brahmins. In

the country round Madras, they amount to about one-quarter of the total population. Within memory and up to the close of the last century they lived in a state of slavery to the superior castes; and they are still compelled by custom to live separately outside the boundary of the village, and to perform menial services. Yet they assert that they were once in a superior position. In religious observances connected with aboriginal institutions, they in several respects take the lead. Thus at the festival of Yegammaul, no one but a Pariah can tie the marriage talee on the goddess's neck. They are a laborious and frugal people, omnivorous in diet, and capable of performing much hard work. The Pullar and Chucklers usually grouped with the Pariahs have in reality no connection with them, and the three tribes keep quite apart. It has been stated in these pages that there are at present very considerable difficulties which prevent a separation of the lowest from the so-called Shoodra classes, viewing the question as one of race. One of the chief causes for this is the entire absence of any language in the peninsula or the islands, which is earlier than the Dravidian. But it is to be observed that the Pariah is never called a Tamulian. This word may have been reserved for a special section of the Dravidian race.

50. The hill races and wandering tribes constitute 9 per cent. of the population. They are found chiefly in the northern hill districts and on the Neilgherries, in which last district they are more than half the total population. Numerically, the most important hill tribes are the Khonds and Sowrahs, two cognate races of Dravidian origin, who inhabit the mountainous tracts of the Eastern Ghauts attached to several of the large zemindarries of Ganjam and Vizagapatam. On the Neilgherries the most remarkable tribe is that of the Todahs, who assert a superiority over the other tribes of the hills, and confine their own operations to the pasturing of buffaloes. It is apprehended that the Todahs are dying out. The principal wandering tribes are the Brinjarries and Lumbaudies, who are to be found in all parts of the country as carriers of grain and salt. The Coorava races wander over a wide area in Nellore and the adjacent districts, and constitute one of the chief criminal classes.

51. From whatever cause arising, the barriers between the different castes here specified are extraordinary. Individuals of different castes cannot intermarry. They are prohibited from eating together or from drawing water from the same well. A member of a higher caste may not take a cup of water from the hands of a member of a lower caste. Speaking generally, all from the Brahmin priests down to the guilds of carpenters and goldsmiths are regarded as of good caste, and from the Shaunaur tree-climbers and washermen down to the various classes of predial labourers as of inferior caste.

52. In Southern India there is a division of castes, which exists in no other part of the country; namely the division of the right and left hands or the Valangay and Yidangay. A similar division exists amongst the Shacty worshippers, but that fact is not connected with the present. The division is invariably associated with contests for precedence in social matters. The following lists show the more important of the castes which take part in the disputes of the rival hands. On the left hand; Chetties, artisans, oilmongers, weavers, Patnavar, male leather-workers, and female Pullies. On the right hand; Vellaular, Cavarays, Comaties, accountants, silk-weavers, male Pullies, Pariahs, and female leather-workers. It is to be observed that the females of two of the inferior castes take different sides from their husbands in these disputes. Certain castes take no part in these feuds, and occupy a neutral position. These are Brahmins, shepherds, and the Shataunies who have nominally foresworn caste observance. This singular division of the people obtains in greatest force towards the extreme south. As to the origin of the division, it is to be noted that whilst the left hand everywhere comprises the Punchaular, or five guilds of goldsmiths, ironsmiths, coppersmiths, carpenters, and masons, together with the leather-dressers and a few other insignificant castes, the right hand comprises all the principal castes of the country. In short, it is a dispute between the principal artificers and the agricultural, mercantile, and other classes. The Punchaular, as before mentioned, affect to wear the sacred thread. On the West Coast the league consists of four classes only, namely, the carpenters or Acharries, brass-founders, smiths, and silversmiths; the masons being excluded.

The circumstance that when the out-caste tribes are excluded a group of five castes belonging to the right hand (called in Canarese Panchama Banajiga) is opposed to a group of five castes belonging to the left hand (Punchaula) may possibly have given rise to the name of 'hands.'

53. The relations between the Hindoo caste system on the one side and Mahomedans and foreigners on the other side remain to be mentioned. The necessity for considering these questions arose long after the original Indian caste system had been arrived at and fixed, and the matter has never been reduced to any intelligible theoretical basis. From the point of view of the ceremonial law of the Brahmins and higher castes, Mahomedans and foreigners are as much beyond the Hindoo pale as are the out-castes named above; but it would be absurd to carry out this argument into detail. In the case of Europeans the spirit of exclusion directed originally against a darker and politically subordinate race is thus directed against a fairer and politically dominant race. Suffice it to say that the caste relations between Hindoo natives of the country and others are theoretically anomalous, but are resolved practically by the common sense of the bulk of the community. The caste distinctions among Mahomedans and foreigners themselves are a subject distinct from the present. Among the Mahomedan tribes there is the mutual right both of connubium and of convivium. The child there takes the rank of his father, whatever the mother's class; as opposed to the principles of Hindoo caste, which permit this even in wedlock only where the mother's rank is equal. Any Mahomedan tribe may assume any occupation, even that of imaum or priest. The Syeds, who have also the title of Meer, take social precedence. A Moghul ranks somewhat above a Pataun, and a Pataun somewhat above a Sheikh. The Moplahs and Lubbays are in census enumerations much under-estimated, as they themselves take other titles; the former are really about 32 per cent., and the latter about 16 per cent. of the total Mahomedan population. Further particulars regarding the social distinctions existing among the Mahomedans will be found at page 233 of the second volume.

54. Religion.—If an examination be made of the Hindoo religion of the whole body of the population, including the upper classes, it will be found that the pantheon of worship embraces one set of deities quite aboriginal, a second class of mixed or doubtful origin, and a third which in its present form they have derived from the Brahminical system. The original population has in fact borrowed something from the Brahminical pantheon while giving numerous deities to it. The great bulk of the population retain beliefs which are too primitive to be assimilated with the Brahminical religion. In the south of India for every person who professes that religion there are twenty who are really not at all either Sheiveites or Veishnavites. On the other hand the Brahminical religion is in point of influence of the first importance. The composite Hindoo religion of Southern India will here be first mentioned; after which will be indicated separately Jeinism, Mahomedanism and Christianity [24–26].

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[24] Sketch History of the Composite Hindoo Religion of Southern India.—*Introduction.*—The following remarks will to a certain extent trace the development of the religion according to its subject-matter, that is to say according to the stages lying between the rudest spirit-worship and monotheism. These stages however are mostly to be ascertained by inference only, and the action of history often traverses that of development. The remarks will therefore partly follow the order of the subject-matter, but partly also the order of time. (2) *Fetish Worship.*—Man conscious of powers within himself is unable to conceive of the absence of power in external objects. Moreover in the operations of nature he is early aware of the existence of actual forces which he cannot understand. Hence the attribution to external objects of a mysterious power to harm or benefit. This when the idea of mystery is sufficiently developed and when it does not go further so as to attribute intelligent power to the object is fetishism. The worship of fetishes is a present form of religion among the woolly-haired races, but with the straight-haired and curly-haired races it is only to be mentioned as a necessary historic germ of their religion. Nevertheless an instance of its continuance in this country is given in the text. And as an accompaniment of magic and sorcery it survives in many religions. (3) *Worship of Spirits.*—When intelligent power is attributed to objects, they become embodiments, and the idea arises of a spirit-world or unseen world. The old Chinese popular religion consists professedly of the worship of two distinct classes of spirits, one which have originated outside and independent of mankind, and the other which are the souls or continuances of deceased men. The last-named idea is perhaps historically the later. In this double form at any rate the spirit-idea pervades the primitive religion of the whole of Southern Asia. In some places the belief inclines to one side, and in some places it inclines to the other side, of the conception. And in some cases the spirits are endowed with little, while in other cases they are endowed with much, superiority. The manifestations in either case are the same. The spirits are conceived as moving freely through earth and air; and, either of their own accord, or because conjured by some spell and thus under compulsion, appearing to men. They may also take up their abode in some object, whether living or lifeless; and this object, as endowed with higher power, is then worshipped. In this religion fear is far more powerful than any other feeling such as gratitude or trust. As a rule all spirits are hostile or evil. But if any distinction is made, then evil spirits receive more homage than the good, the lower receive more than the higher, the local receive more than the remote, and the special receive more than the

55. Homage to remote ancestors is not a practice among the Dravidians, though observances are paid to relatives lately deceased with the intent that they may not return to do harm to the living. Hero-worship is unknown to the

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general. The allotment of their rewards or punishments depends not on men's good or bad actions, but on the sacrifices and gifts which are offered or withheld by them. With morality this religion has little or no connection, and the doctrine of immortality consists almost entirely in the representation that the earthly life is continued elsewhere, while of the doctrine that men will receive hereafter according to what they have done only the first beginnings are to be traced. The remarks here given describe the most primitive religion of the Dravidians. They worshipped through fear a host of demons, including the souls of persons lately deceased. (4) *Worship of Tutelar Deities.*—How principal demons can have been made into mediatory deities has been described in the text. In the patriarchal system each family chose such a deity; the Penates of the Italian system, but far less pure. When the pastoral races settled into villages it was natural that one such deity should be resorted to in common. Hence the tutelar goddesses of every village in Southern India, the Lares of the Italian system but far less pure. (5) *Worship of Ancestors.*—This is a result of the worship paid through terror to the shades of persons lately deceased. Under favouring circumstances such a sentiment would expand into veneration, as in the case of the Manes or "good spirits" of the Italian system. The ancestor worship of the Todahs shows what was probably a rite of the ancient Coorumbar. The Khonds also retain the same. The ancient Dravidians burned their dead, before they deposited their ashes and bones in cinerary urns and vessels of baked clay. But not in all cases, for the cairns of the Kistna district yield bones, which have been uninjured by fire. Along with the human remains are buried in some cases weapons of iron or the ornaments of the deceased. That these people had some vague notions of a future life is shown from the care and labour they bestowed on the sepulture of the dead, providing in the tomb the various articles which had been useful to the corpse when living. But where fear ceased and veneration began, it is impossible to say. (6) *Ritual attached to Demon Worship.*—As soon as there arose ritual and the domination of a priestly class however indefinitely organized, the rites of devil-dancing began in which one sought to obtain power over many. On the one hand it has been said that devil-dancing has for object merely to draw the demon away from doing worse harm in times of calamity, but on the other hand the motive just mentioned or the desire of men to be soothsayers seems to be equally the cause. Devil-dancing and its connection with Siberian Shamanism are elsewhere described. Sacrifice is a universal phenomenon of all religions except the highest. Even the Israelites left Egypt on the plea of sacrificing in the desert. It has appeared among the Dravidians in all its phases. The demonesses of South India have seldom required less than the sacrifice of a living animal. A fowl is a common sacrifice, and a buffalo is a larger one. The essence of sacrifice is self-abnegation and the value of a sacrifice is in proportion to its cost. (7) *Human Sacrifices.*—That the living sacrifices of the Dravidians included originally human sacrifices, there can be no doubt. The most terrible domonesses, the prototypes of the Hindoo Kalee goddess, all demanded on great occasions a human sacrifice. Till within recent times the wandering gipsy Brinjarries when setting out on a journey immolated a child under inhuman circumstances. In the Tamul districts there are plain traces that Maury, a village goddess, has demanded human victims. At a village in Tanjore district small images in human forms but made of flour dough have quite lately been presented to the deity, the image being decapitated as a sign of the sacrifice. But the wild Koois or Khonds of the Ganjam hill tracts have maintained the rite to the latest times, under the names of Meriah, Tokky or Keddy. These affairs are within present recollection. Among them the goddess of agriculture demanded such victims in many villages and whenever drought occurred. Immense numbers were sacrificed yearly. The victims being purchased from other tribes, the sacrifice was consummated in a manner too cruel to be here narrated. The Government rescued thousands of victims reserved for sacrifice, and did not finally extirpate the rite till a quarter of a century ago. A development of this form of human sacrifice was that under which relatives and servants were despatched on the death of a principal man. Marco Polo in the thirteenth century describes the performance of this rite for a ruler of the South-east coast, probably a Maravan. The self-immolation of widows was another form. It may be held that the word suttee is only borrowed from shacty or female energy. It does not appear that suttee was an Aryan rite. The Caulica Poorana written in honor of Kalee prescribes human sacrifices with full details of observance, but it was written long after the Brahmins had joined their own religion with that of the aborigines. (8) *Connection of Demonolatry with the later Brahminism.*—The origin of demonolatry lies in unknown antiquity. That this form of worship was independent of and anterior to Brahminism need scarcely be stated. But the proofs can if necessary be formulated in the following way. "*a*" In all Brahminical myths the demons are represented as being the ancient enemies of the gods. "*b*" All Brahminical legends mentioning the original inhabitants of Southern India refer to a period when demons ruled over the jungles, which were inhabited by a race who eat flesh and offered living sacrifices. "*c*" All words used in Southern India relative to the Brahminical religion are Sanscrit, while the names of demons worshipped by the Shaunaur, and the various words referring to devil-worship are Tamul. "*d*" There is no priestly order devoted to the worship of devils; on the contrary every devil-worshipper is or may be his own priest. "*e*" The offering of living sacrifices is opposed to all Brahminical ideas. "*f*" A clear proof of the un-Brahminical origin of devil-worship is obtained by reference to the history of the devils themselves. The process of demonification is still going on amongst the Shaunaur, but none of those most recently raised to this position has any connection with the legends of Brahminism. "*g*" There are evidences that the Brahminical system was considered by the Shaunaur a hostile and rival creed, and opposed as such. The only national festival of the Shaunaur is the first day of the solar month Audy, which is celebrated in memory of Ravana, the Racshasa king of Ceylon, who on that day carried off Seeta, the wife of Rama the hero-god of the Brahmins. Ravana's prime-minister, Mahodara, was a Shaunaur; and to this day the Shaunaur please themselves with Rama's grief and Ravana's success. There is a mythical record of the adoption of the aboriginal demonolatry into the Brahminical system, and of the object in view in this alliance, in the Pooranic story of the sacrifice of Dacsha. According to that story, Shiva (representing Sheiva Brahminism) found himself unable to subdue Vishnoo and to secure to himself the exclusive homage at which he aimed, till he called in the aid of the demons (representing the aborigines), and put himself at their head in the person of his son Veerabhadra. The latter was a demi-god whose wife emanation or representative, Bhadrakalee, is regarded by the Shaunaur as their patroness and mother. (9) *Worship of Trees.*—Trees from their beauty and general utility are recognised by primitive nations as suitable abodes for their gods. From this cause in an indeterminate way they become themselves objects of worship. There is scarcely any country where tree worship has not been found. The Assyrians, Greeks, Romans, and Druids had their ancient sacred groves. The Assyrians especially worshipped trees. The trees of life and knowledge which stood in the garden of Eden represent legends of tree worship anterior to the Jewish religion. The burning bush on Mount Horeb in which Moses saw the deity is connected with the same belief. Baal was worshipped in sacred groves. There are many other references of the same sort in the Pentateuch. Amongst the Romans trees were consecrated to particular deities, votive wreaths being hung on the branches. Other countries where traces of this ancient worship have been specially investigated are Mesopotamia, Persia, Africa, Germany, Sarmatia, Scandinavia, France, and America. In classic Sanscrit literature the creed is represented by Parijauta, Calpadrooma (the tree of wishes), and other celestial trees, as well as by the singular trees which are the distinctive symbols of, and give their names to, the different dweepas or continents of the cosmography of the Pooranas. The Booddhists, for their part, have quite a collection of sacred trees; among others, the different Bodhy trees, of which each Booddha has had his own, and four of which, specified in the Deepavamsha, are the objects of a special adoration. It was under a peepul fig-tree (Ficus religiosa) that Booddha sat when he passed through that spiritual crisis which converted him into a religious mendicant. The Mahavanso or ancient native history of Ceylon narrates how a branch of this tree was sent there by Asoca king of Magadhah about 260 B.C., and planted at the town of Anooraudhapoora, thenceforward and to the present day to be the object of special regard. The Ficus religiosa is very prevalently worshipped for its own sake in Ceylon. In Southern India

Dravidians. They do not act with any hope of reward, or any fear of punishment, which will arise after death. They do not believe in metempsychosis, or the passage of a soul through the bodies of many animals. There is yet in some way

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the reverence paid to single trees as the abode of evil spirits, and sacred groves as that of superior deities, has always been universal among the lower population. To be strictly correct it should be said that the worship of trees is rather an adjunct to worship than worship itself. (10) *Animal Worship.*—There is no distinct evidence that formidable animals other than the serpent were ever worshipped in Southern India, but it was most probably so when the country was not sufficiently cleared for the occupation of man. A superstitious awe of the tiger at any rate remains. The animal worship which has been most characteristic of Southern India within periods that have come under observation is the worship of apes, especially that species known to naturalists as langhurs. These are tended with affection. They were sacred before Shiva worship was introduced, and when that took place the old monkey god Hanooman was styled an incarnation of Shiva. Regarding the transference of the South Indian monkey worship to South Indian history, reference should be made to the note on Sanscrit Legends given later on. The buffalo was held sacred by the early tribes of Mysore, and is still by the Todahs of the Neilgherries. The buffalo was indigenous to Southern India before the ox class. Mysore means the town of buffaloes. The bull has not been worshipped in Southern India for itself, but as Shiva's vehicle and under the name of Nundy it has always been placed in the Shiva temples opposite to the lingam or emblem of Shiva. The worship of the cow came with the Brahmins. The totem system by which tribes reverence each a special animal has been as common in South India as in any other part of the world. The Pandyans had their fish, the Cadambas their monkey, the Ballaulas their tiger, the Jadows their kite, &c. No instance is known in the south however where an animal has been eponymous to a tribe. In the old Dravidian astronomy the designation of the constellations by names of animals already appears. (11) *Serpent Worship.*—This demands a special notice. The serpent of all animals moves with singular celerity and grace, although destitute of the usual appliances for locomotion. The shape of its body is elegant, and its colours are often beautiful. Noteworthy attributes are also its longevity, and its power to exist for an indefinite period without food. On the other hand, the serpent has mysterious and exceptional powers of destruction. These qualities have early singled it out as the object of a complex regard and worship. Historical traces of serpent-worship have been discovered in most parts of the world, but principally in the following countries :—Judæa (where was erected the Brazen Serpent), Phœnicia, Mesopotamia (the scene of the story of Bel and the Dragon), Greece (where Hercules was the progenitor of the whole race of serpent-worshipping Scythians, through his intercourse with the serpent Echidna), Italy, Sarmatia, Scandinavia, Great Britain, Africa, America, Persia, Cashmere, Cambodia, China and Oceania. Of these instances the most remarkable is that occurring in the French dependency of Cambodia, part of a peninsula projecting into the China sea in the same way that India projects into the Indian Ocean. An examination of this country has produced astonishing results on the subject of the high civilization enjoyed there by a former snake-worshipping population, and there also caused as in India by an Aryan acting on a primitive race. This discovery may have much influence on South Indian ancient history. Ceylon was at one time wholly occupied by a serpent religion. And the only questions in that case arising are to what extent it was imported, and how far again it was shared with Southern India. For the present, Cambodia is connected rather with Northern than with Southern India, and it must be assumed that this religion is intrusive in the peninsula. The Sanscrit Mahabharat opens, like the Pentateuch, with a curse on the serpent. Then after the first canto, which is merely a general introduction to the whole poem, the next three cantos are wholly occupied with the affairs of the Naga race, commencing with the birth of 1,000 Nagas from Cadroo wife of the Rishy Casyap. From these Nagas descended the serpent race, who reign in the nether-world. Arjoona, one of the Pandava brothers, is also represented as marrying two Naga princesses. These statements divested of poetic dress will refer to a serpent-worshipping race in Northern India with whom the early Aryans came in contact. According to the Mahavanso, Ceylon was inhabited by the Naga race of serpent-worshippers prior to the third century B.C., but they were then converted to Booddhism. Booddhism itself did not disdain to make use of the religions of the aboriginal races, and incorporated serpent worship even more definitely than it did tree worship. Serpent worship as a distinct ritual was suppressed by one of the Magadhah kings about the end of the seventh century B.C., at the same time that the twin faith of tree worship was elevated to the first rank. In Asoca's inscriptions during the third century B.C., there is no trace of the worship either of Booddha himself or of serpents. In the sculptures at Saunchy which date from about the middle of the first century A.D., the serpent appears as an emblem, but only rarely. In those at Amravatty however again three centuries later, the Naga is found co-equal with Booddha. These variations from time to time indicate the fluctuations between different forms of faith. The latest known example of any important Naga sculpture is a bas-relief at Mauvellipore (the Seven Pagodas), forty miles south of Madras. The sculptures at Mauvellipore are supposed by archæologists to be the work of a religion progressing from the north. The Naga worship then may be considered to have been that of a people residing in Northern India, whose affinities were principally with Thibetans, Burmese, Siamese, and other trans-Himalayan populations; and of whom an offshoot has appeared in Ceylon. It is alien to the Dravidians. Its connection with Booddhism has been mentioned. It underlies Veishnavism also, where it appears as a many-headed tutelary deity. It has not been employed for worship by Sheivism; the serpent of Shiva being a cobra, and representing only an adjunct designed to cause terror. Naga worship is a religion of the Mongolian Turanians. (12) *Phallic Worship.*—The best history that can be given of this is to show its universality. As the mind opens, the first abstract idea that develops itself in primeval races is of that reproductive energy of nature, which more or less veiled is the ultimate idea and principle underlying all primitive systems and deities. And of this the earliest and rudest expression would be some form of the lingam, most readily typified by the stones scattered around. Evidence is not wanting of the prevalence of this worship in Phœnicia, the scriptural Canaan, from whence it entered Palestine itself. Herodian in his 5th book thus describes the image of the sun at Emesa, called by the Phœnicians Elaiagabalom, and worshipped not only by them but by the neighbouring kings and satraps. "It has no form of a statue, but is a "very large stone, round at bottom, and tapering sharply conelike, its colour black; it is said to have fallen from the "sky, and to be an unformed image of the sun." The stone said to have been devoured by Saturn in mistake for Jupiter and related by Pausanias to be placed in the temple at Delphi, and anointed daily with oil, was a lingam. "The ancient "Arabians," says Maximus Tyrius in the above cited essay, "worship I know not whom, but the image I saw was a "quadrangular stone." From Suidas it is further learnt that it was black, and it is the same meteoric stone now preserved in the Caaba at Mecca. The chief idol of the Germanic tribes, the Hermansaul, was at first a tall black stone. In Masson's Travels the idol of the mysterious Sia-posh of Central Asia is affirmed to be "an erect image of black or dark "coloured stone the size of a man." The practice of anointing stones with oil dates from very ancient days, and is no doubt the cause why in most instances sacred stones are described as black. The May-day dances and poles in England are a relict of the phallic rites of pagan times. Pausanias states that in the most ancient times even amongst the Greeks rough stones were reverenced instead of images. Hercules was represented at Hyetta by a rude stone according to ancient usage. So was Juno at Samos, and even the Graces at Orchemenos. These facts might be indefinitely multiplied. When lingam worship first arose in this country is not known, but the Sanscrit writers make a very clear reference to the lingam as a deity reverenced by the aborigines, who were ever at war with the power and religion of the Brahmins. In the Oottara Khaundam of the Ramayana the following lines occur :—"Wherever Ravana, "lord of the racshasas, went a golden lingam was carried thither. Placing that lingam in the midst of a pedestal of sand, "Ravana worshipped it with incense and flowers of ambrosial odour." In the denominational jealousy which gave rise to the Pooranas, the lingam worship assumed a special part and found its exponents. The Linga Poorana advocates the worship of Shiva in various forms. There can be no doubt that at the time of the Mahomedan invasion, the worship of the lingam was common all over India. Twelve principal symbols were set up at widely distant places, which were objects of especial veneration. One was situated at Rameswaram in the extreme south. The idol destroyed by

a belief in a future state. In their primitive state the Dravidians have no idea of an all-pervading power; still less do they contemplate a benevolent personal deity. They dread that which is beyond their comprehension, and are not averse to

Mahmood of Ghuznee at Somnaut in Goozerat was one of these lingams. At the present day the lingam is the only form in which Shiva is worshipped in Southern India. Shiva is sometimes represented in effigy as an ornament, but never as an object of worship. Its counterpart is the yony or symbol of female nature as fructified and productive. This was added by Brahminical philosophy. The two together are called in Tamul ஆவுடையார் or that which has life. The Lingayets hereafter to be mentioned did not recognize the yony. (13) *The Early Religion of the Aryans.*—The religion of the Aryans before they entered the Indian continent was a nature worship of a pure nature. It consisted of oblations to fire (Agny), and invocations to the firmament (Indra), the seasons, the sun, and the moon. The sacrificer invited these deities to be present, and to accept his offering; which was either clarified butter, or soma juice. In some texts only three deities are acknowledged; fire, air, and sun. Fire had the pre-eminence, and the Aryans used the funeral pyre. The early religion of the Aryans was a worship of elements. It contained no idolatry. It contained scarcely any anthropomorphism. Transmigration was not at that time recognized. The Aryan religion is known from mutual comparison of the Indian and Persian religions. The elements they possess in common must once have been the joint property of both. (14) *The Vedas.*—After the separation of the Iranian and Indian peoples, the Hindoos established themselves in the land of the seven rivers, at the mouths of the Indus. There the old Aryan religion gave way before the independent development of the Vedic religion, known to modern inquiry through the principal Veda called the Rig Veda. Professor Tiele of Leiden, to whose compendium on religion this note is in several respects indebted, points out that if in its doctrine of spirits and worship of ancestors, as well as in the child-like nature of some of its ideas, it still exhibited the survivals of earlier conceptions, it had on the whole outgrown their influence. The Devas were no longer simple powers of nature, but to some extent at least beings endowed with moral qualities, raised above nature, creators and governors of the world. Among all the gods however Indra and Agny were still the principal objects of praise. The goddesses were kept in the background. The conception of goddesses was developed by contact with the aboriginal races of India. The Brahmins already made claims to distinction, but they did not yet form an exclusive caste, for kings and kings' sons also performed priestly functions. The first office of the Brahmin was that of family priest. Morality and religion were already closely connected. The gods ruled over the moral as well as over the natural order. The ideas of the Vedic Hindoos about ancestors and their worship were the same as those of ruder nations, and their representations of future bliss were still sensuous, but they looked for requital of their actions after death. The conceptions of immortality were immature, but they existed. Of the doctrine of the transmigration of the soul, the Rig Veda exhibits no trace. It is evident that the religion here sketched was on the whole in strong contrast with that of the Indian nations. (15) *The Brahmins.*—With the diffusion of the Hindoo-Aryans over the region south-east of the seven rivers, and their settlement on the banks of the Ganges and Yamoonah, their religion entered upon a new era. The Vedic religion was succeeded by the hierarchy of the Brahmins. The Brahminic religion is entirely under the control of what Europeans call the caste system, which has been before described. The circumstance that writing was unknown, or at any rate was not generally employed for literary purposes, contributed to give increasing influence to the Brahmins. Subject at first to the princes and nobles, and dependent on them, they soon acquired the sole right to conduct public worship, made themselves masters of instruction and of the most influential civil offices, and set themselves up as the exclusive guardians and interpreters of revelation (srooty) and tradition (smrity), in virtue of possessing a higher knowledge which the mass of the people did not comprehend. The character of the religion of this period is revealed by its religious literature. By far the greater number of the works belonging to it were composed with a view to the sacrificial service. In the doctrine of the gods Brahminism made but little change. The Ashooras however who had been in earlier times the chief of the gods, and in the beginning of this period were still placed along with the Devas, were lowered, perhaps in consequence of their resemblance to the gods of the old hostile occupants of the country, to the rank of evil spirits. The reverence for the Devas also perceptibly diminished as the Brahmins placed themselves on their level, and the hermits especially who did penance regarded themselves as superior to them in power and dignity. The only exception was in favour of Roodra the storm-god, whose worship increased considerably in this period, and served as one of the foundations of the later Shiva worship; he had not yet however become the chief god. The conception of Brahma also as an all-ruling deity arose in this period. The moral and social ideal of the Brahmins is known from the law book of Menoo. (16) *Contest between the Brahmin and Cshatriya Castes.*—Part only of the population on the banks of the Indus left its ancient home. Those who went established a schism, and designated the ancient section as Vrauteenas or out-castes. The Western non-Brahminic Aryans refused to adopt to the reforms of the emigrants, and adhered to their own Yoddhahs (warriors) and Arhants (teachers). The Cshatriyas also who proceeded into India exhibited the same antagonism, and it was not for some time that the Brahmins completed their ascendency. One of those Cshatriyas, Gowtama (or a Cshatriya school of that name) evolved and moulded into shape the ideas which subsequently became the basis of the Booddhist faith. (17) *Development of Monotheism among the Aryans.*—The conception of Brahma led to monotheism. Texts in the later Vedas read thus. "There is in truth but one deity, the supreme spirit." "He "from whom the universal world proceeds, who is the lord of the universe, and whose work is the universe, is the "supreme being." "Adore god alone; know god alone; give up all other discourse." Ministration to idols was then held infamous. Menoo says that temple priests are unfit to be admitted to family sacrifices, or to engage in intercourse with the people. Even to this day Brahmins who wait upon images, or serve in temples, are regarded in an inferior light. (18) *Sheivism.*—Roodra whose worship as above seen had made advances was presently raised, under the name of Shiva, to the position of supreme deity or Mahadeva. His character is not to be reproduced in a single word. As Roodra his nature is violent and dreadful; he lives in the wilderness on the loftiest mountains; in ascetism and therefore in power he surpasses all other beings. But at the same time he is a god of fruitfulness, and thence the creator; and he is from this time therefore generally worshipped under the symbol of the lingam. This symbol is not of Aryan origin, and the Shiva of this period must have arisen out of the fusion of Roodra with a native deity. Both the representation of his person and the character of his worship are thoroughly unbrahminic, the worship of demons being connected inseparably with his worship. He was particularly popular in the mountain districts of the north and in the Deccan. The consort of Shiva, who combines in her person the same conflicting characteristics, and who is marked out by her self-renouncing piety (tapas) as an ancient fire-goddess, and by her relation to Saraswatee, the goddess of the waters and of knowledge, as a goddess of mountains and streams, was invoked alike under the ancient names Ambikah and Oomah, the "mother" and the "protectress," and under the more modern titles Kalee, the "black one," and Doorga, the "terrible." As Kalee-Doorga she is the goddess of death, horrible in shape, and worshipped with living sacrifices. In the pantheon she takes a much more prominent place than all the other goddesses, whose composite qualities and names indeed have been generally transferred to her. Roodra it may be said became really Shiva only after the aboriginal goddess Doorga had been united to him, and he borrowed from her all his terrible characteristics. Doorga again was changed in the process, for the aboriginal races never regarded her as having a consort. She was also confounded by the Aryans with their own ancient goddesses. Out of this process at any rate arose Shiva and Parvaty, as man and wife. In one form, but not in Southern India, Shiva is represented as half man and half woman; or Ardhanauree. In its mystic side, Sheivism remained long a professional religion of the Brahmins and men of letters. The most ancient dramatic literature is under Sheiveite patronage. It is the same with the works of romance. It is likewise to Shiva that legend ascribes the origin of grammar; and Ganesh, who is met with early as the god of arts and letters, is a figure of the Sheiveite pantheon. As a popular religion Sheivism was carried south by the Brahmins, when they undertook to instruct the Dravidians in the religion of the Pooranas. Though Doorga was not indigenous to the south, she was allied to the spirit of the demon-worship of the south. (19) *Veishnavism.*—In the Vedic period Vishnoo was a god of subordinate

converting such ideas or objects into the embodiments of supernatural power. They are no longer in a state which recognises fetishism, and stocks and stones do not in their estimation have inherent power but represent only the habitation of other

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importance, generally connected with Indra, and seldom celebrated by himself. He did not rise much higher in the Brahmana period, at least among the Brahmins and Cshatriyas. Presently however he was elevated to be the supreme god. In his heaven, Veicoonta, his consort was Lutchmee or Shree, the goddess of fruitfulness and marriage; to her the cow was dedicated, and her symbol was the lotus flower. Of the Vishnoo worship the doctrine of the avatars or incarnations (literally "descents") is the most characteristic feature. Vishnoo, when danger threatened either the Devas or their worshippers, assumed certain terrestrial forms to assist them. The doctrine of the avatars afforded an opportunity of identifying Vishnoo with favourite heroes of tradition. Such were Rama or Ramchendra, who extended his conquests to Ceylon; and Parshoorama, the "axe-Rama," a native hero of the Deccan whom the Brahmins canonized as the destroyer of all the Cshatriyas. In the Krishna avatar the worship of Vishnoo reached its climax. Krishna was probably an aboriginal hero of some of the northern tribes. In the Bhagavatgeeta Krishna appears as the preacher of an ethical-pantheistic doctrine, and proclaims himself as the supreme being. In the Geetagovinda prominence is given to the legends of his miraculous birth, his intercourse with the shepherds, and his life with the shepherdesses, the remembrance of which was celebrated by special religious festivals; but this was a later production. When Booddhism had ceased to be dangerous to the Brahmins, Booddha himself was included among the avatars of Vishnoo. At the end of this age or Kaliyoog Vishnoo is to appear as Calky, to root out all wickedness. (20) *The Hindoo Triad.*—This is called Trimoorty in Sanscrit and Moommoorty in Tamul. It was foreshadowed in the Vedic association of the three gods Agny, Vayoo, and Soorya; fire, wind, and sun. Philosophers endeavoured to unite the conflicting claims of Shiva and Vishnoo, and first conceived of Harihara who combined the two. Then the original Brahma was added, making a triad. The acceptance of the triad as an article of creed was of late growth and special to Southern India. (21) *Minor Deities of the early Brahminical Period.*—Among the gods adopted during this period into the Brahminic system, Ganesh, the god of arts and wisdom, occupies the principal place. Besides him however there were Scanda Cartikeya the god of war, and Cauma the god of love. (22) *The Six Darshanas or Earliest Systems of Hindoo Philosophy.*—The religious literature of the early Brahmins may be thus summarized. It began with the hymns of the Rig Veda. Then was added the Yajoor Veda, divided into "white" and "black," and the Saumaveda; but these are only new versions of the Rig Veda. Later came the Atarva Veda, containing incantations against evil spirits, and marking a new stage of religion. Together these constitute the complete Veda, the sacred knowledge, or the four Vedas. The whole body of religious literature thence proceeded. First each of the Vedas had its samhitah or collection of hymns. Secondly to each Veda belonged different Brahmanas, treatises of ritual and theology, afterwards supplanted by the Aranyacas (forest treatises), and the connected Oopanishads (confidential communications), theological-philosophical treatises, prepared more especially for the use of the hermits. The Brahmanas contain here and there elevated thoughts, and not a few antique traditions of the highest importance. Thirdly each Veda had its sootras (threads), short compact guides for public and domestic sacrifices and for the knowledge of the laws. All these books were handed down orally, and each school (charana) had its special text (shakhah), both of Samhitahs and of Brahmanas. Even when the art of writing was already known, it was regarded as grave sin to write them down. Of the existing Oopanishads only a few belong to this period; the rest are of later day. The composition of Oopanishads and Sootras continued when the Vedic Samhitahs were already closed, and no new Brahmanas were composed. Menoo's law book contained the moral and social code of the Aryans, and this also was claimed by the Aryans under the head of religion. So again philosophy. The main propositions of early Brahminical philosophy have been numbered at seven as follows. In the first place, it holds the eternity of soul, both retrospectively and prospectively, and the soul is either the supreme or a personal soul. In the second place it asserts the eternity of the matter or substance constituting the visible universe. This is so whether that substance has a real material existence or is simply illusory. In the third place, the soul, though itself sheer thought and knowledge, can only exercise thought, consciousness, sensation, and cognition, and can only act and will, when connected with external and material objects of sensation, invested with some bodily form, and joined to mind; this last belonging to the body and being distinct from soul. The supreme soul has thus connected itself in successive ages with objects and forms, becoming manifest either as Brahma the creator or in the form of other gods, as Vishnoo and Shiva, or again in the form of men. Fourthly, this union of the soul with the body is productive of bondage. When once so united the soul begins to apprehend objects through the senses. It also becomes conscious of personal existence and individuality. Then it commences acting. But all action entails a consequence; and if an act be good it must be rewarded, and if bad it must be punished. Fifthly, in order that the consequences of acts may be entirely worked out, the soul must not only go to heaven or hell, but must also return to corporeal existence. Thus it has to pass through innumerable bodies, higher or lower, according to its various shades of merit or demerit. Sixthly, it is to be observed that in all this the soul has to bear the consequences of its own acts only. Moreover it is exposed to the action of a force which can never be guarded against, because its operation depends on past action wholly beyond control and even unremembered. Seventhly and lastly from a consideration of the above six propositions it is plain that the aim of philosophy is to teach a man to abstain from every kind of action and every kind of sentiment. The living personal soul must shake off the fetters of action and getting rid of body, mind, and all sense of separate personality, return to the condition of simple soul. This constitutes nyauna, the right apprehension of truth, which, if once acquired by the soul, confers upon it final emancipation, that is to say moksha or bliss. In other words the aim of philosophy is the loss of all separate identity by absorption into the supreme being. The Hindoo schools of philosophy founded on this common basis are usually classed in the following order:—the Nyauya, founded by Gowtama; the Veisheshica, by Canauda; the Saunkhya, by Capila; the Yoga, by Patanjaly; the Mimaumsa, by Jeiminy; the Vedanta, by Baudarauyana, sometimes called Vyausa, or Veda Vyausa. They are called the six shastras, or writings of authority, and sometimes the six darshanas, views or expositions of doctrine. The Nyauya is properly a system of logic, offering many points of resemblance to the methods of Aristotle. The Veisheshica treats of physics, of the categories or general attributes of things, and of the formation of the kosmos, which it attributes to the qualities and movements of primitive atoms. The Saunkhya is an atheistical philosophy. The Yoga is similar, but inclines to pantheism. The Mimaumsa, or prior Mimaumsa, arose from a desire to maintain and illustrate the ritual of the Vedas. The Vedanta, or later Mimaumsa, was formed at a subsequent date on the base of the Oopanishads. Its main object is to explain and enforce the religious doctrines of the Vedas. The word means end or scope of the Vedas. It represents a pure pantheism, and maintains absolutely the doctrine of adweita, or non-dualism. In its fuller development, this system denied the existence of matter or material forms as objective realities. Visible things are only appearances, a kind of mirage, called mayah (illusion). The doctrine of the Vedanta is summarized in this half couplet: 'Brahma is true; the world is false; the soul is Brahma himself and nothing other.' And explained and expanded by the advocates of the Vedanta, the meaning of these words is as follows: "Brahma alone—a spirit; essentially existent, intelligence and joy; void of all qualities, and of all acts; in whom there is no consciousness such as is denoted by 'I,' 'thou,' and 'it;' who apprehends no person, or thing, nor is apprehended of any; who is neither parviscient nor omniscient; neither parvipotent nor omnipotent; who has neither beginning nor end; immutable and indefectible—the true entity. All besides himself, the entire universe is false, that is to say, is nothing whatever. Neither has it ever existed, nor does it now exist, nor will it exist at any time future. And the soul is one with Brahma." The Vedanta thus interpreted was preached by Shuncaracharya very many centuries later in Southern India. Every Sheiveite so regards it to this day, and this may be called the orthodox interpretation. It consorts in a remarkable manner with the natural mental tendencies of the Dravidian population. The Madhwas convert adweita into dweita, and the Ramaunoojeeyas convert it into vishishtadweita; but these two sects of Veishnavites are none the less Vedantists. (23) *Booddhism as a rival to Brahminism.*—The first blow received by Brahminism in its progress southwards was the uprising of the half-brahmi-

powers. A relic of fetish-worship however subsists in the festival of Gowry or wife of Shiva, at which each offers sacrifices to the tools and implements used in the exercise of his calling; the labourer worshipping his plough, the mason his

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nized native tribes on the east of the Madhyadesha, initiated by the preaching of Booddha in the sixth century B.C. Gowtama Booddha, or Shakya Moony, was the son of the Rajpoot king of Capilavast, on the confines of Nepaul and Oudh. After pursuing the ordinary habits of a prince till his twenty-eighth year he assumed a religious life, and gave himself up to austerities for a period of six years. He then abandoned his solitude, and passed the rest of his life preaching and inculcating virtuous conduct. This missionary aspect of Booddhism appealed to the non-Aryan races of Northern India with which he was then in contact, and finally to a large section of the Asiatic world; from its contrast with the ritual of the Brahmins, which they reserved solely for the three twice-born castes. The native races of the north had from long familiarity with the Aryans acquired such a degree of civilization as led them to desire something like equality with their masters. They therefore welcomed a preacher who proclaimed the abolition of caste. The religion in its earliest stages was rather social and moral, than doctrinal. In one aspect Booddhism is merely a development of the Saunkhya philosophy of Capila, and this and Brahminism are connected by intermediate links. The dynasty called Mowrya was founded at Palibothra or Patna near the confluence of the Ganges and the Sone in B.C. 325 by Chundragoopta (the Greek Sandracottus), undoubtedly an aboriginal ruler. Chundragoopta, according to Megasthenes, was king of the Praxii or Prasii. This is the Greek form of the Sanscrit Prauchya or Eastern. Chundragoopta forms a connecting link between India and the West, by his connection with Seleucus, King of Bactria, whose daughter he married. Seleucus sent an ambassador named Megasthenes who resided at Palibothra for many years, and wrote an account of India. Chundragoopta consolidated the whole of the northern and much of the eastern portions of India into one monarchy. He died in 300 B.C. and was succeeded by his son Mitragoopta or Bindoosaura, who in his turn was succeeded in 260 B.C. by Asoca. This event is memorable in religious history. Soon after his accession, Asoca renounced the Hindoo faith, and changed Booddhism from a struggling sect into the religion of the state. The extent of his widely-spreading dominions is marked by inscriptions on stone pillars and rocks, many of which still remain and have been discovered to be edicts proving him a wise and benevolent monarch. In the eighteenth year of Asoca's reign (242 B.C.), Booddhist missionaries were sent into the south; to Mahishamandala or Mysore; to Banavausy the capital of the Cadambas on the river Varadah north of Mysore; and to other places. Booddha himself is said to have visited the Naga kingdom of the Deccan, and even Ceylon. After Asoca's death his empire was divided. His son Mahindo or Mahendra in 244 B.C. carried the Booddhist scripture to Ceylon in the Maugady language of Palibothra, and soon afterwards Mahindo's sister Sanghamitta followed with a company of female devotees. The religious literature was translated into Pali, the sacred language of the Ceylon Booddhists about 420 A.D. Booddhism though it checked Brahminism, did not dispossess it from any large part of India. The two systems co-existed as popular religions during more than a thousand years (244 B.C. to about 800 A.D.). As to the south, Booddhism never gained a footing of much importance among the Dravidian races. In the eighth or ninth century A.D. the few votaries of that religion who existed in Southern India were finally expelled from it. The principal seat of the Booddhist monks was the valley of the Kistna, and the Amravatty stoopa is a well-known monument. There are no principal Booddhist monuments south of the Kistna. A controversy is said to have taken place between the Booddhists and Maunicavausagar, minister of one of the Pandyan kings, at Chidambaram; but the advocates of the Booddha faith came over from Ceylon for the purpose of holding the disputation. The date of this controversy is not satisfactorily ascertained. Note may also be taken of the confutation of the Booddhas of Malabar by Coomaurilabhatta, hereafter to be named, as noticed in the Keralolputty. Dismissed from India, except among the Nepaulese and some other northern tribes Booddhism betook itself to other countries. At the present date it bears full sway in Ceylon, and over the whole Eastern Peninsula; it divides the adherence of the Chinese with the systems of Confucius and Lao-tse, claiming perhaps two-thirds of the population; it prevails also in Japan (although not an established religion); and, north of the Himalayas, it is the religion of Thibet (where it assumes the form of Lamaism), and of the Mongolian population of Central Asia, and extends to the very north of Siberia, and even into Swedish Lapland. Its adherents are estimated at 400 millions; more than a third of the human race. The Booddhistic form of faith is probably as old as it is now prevalent. It was plainly much antecedent to the reputed date of Gowtama Booddha; indeed Booddhists speak sometimes of four and sometimes of twenty-four Booddhas at different periods of history, preceding Gowtama Booddha, each with a sacred tree, and each conducting a life similar to his. Booddhism is decidedly not Dravidian in any of its tendencies. It will be clearly understood that though Booddhism is here mentioned to illustrate the history of the Hindoo religion, it forms no part of that religion. Great as is the latitude applied to the term Hindoo, it cannot in any sense connected with religion include the followers of Booddha. (24) *Religion of the Jains.*—The sect of the Jeinas derived its name from its veneration of Jinas or eminent ascetics, who had conquered all the desires of sense and thus raised themselves above the gods, Mahaveera being the most celebrated among them. It is very closely related to Booddhism, and in Sanscrit literature is hardly to be distinguished from it. Its origin lies hidden in obscurity, but it is not improbable that it proceeded from a compromise between Booddhism and Brahminism in the first centuries after Christ. According to the Jeinas, Gowtama or Booddha himself was a disciple of Mahaveera. The Jeina sect took its origin in the Gangetic valley; but spread down the Coromandel Coast and thence inland. It reached much further south than Booddhism had done; but being checked in its southward course it extended itself in the centre and west of the peninsula. In the eighth or ninth century it was fully established as the religion of influential parts of the community in Madura, Mysore, and the West Coast. Previous to this the Jains had contributed to the expulsion of the Booddhists. There is a tradition to the effect that the Booddhas of Canjy were confuted by Akalanka, a Jain priest, and were thereupon expelled the country. Veera Pandya, king of Madura, became a Jain and persecuted the Booddhas, putting them to torture. These are examples from one part of the country only. In the twelfth century the joint attacks of Sheivas and Veishnavas induced the decline of Jeinism. The Jains however always had a political leaning towards the Brahminical Hindoos. This was observable in their recognition of the orthodox pantheon; in the deference paid by them to the Vedas and to the constitution of castes; and in their employment of Brahmins as ministrant priests. This sect still remains to this day, and the tenets will be elsewhere described. (25) *Further Progress of Brahminism.*—During this period the Brahmin intellect ever at work had resolved on and achieved an effective compromise with the indigenous creeds of the country. But in doing this it produced a second religious literature, the Pooranas. (26) *The Hindoo Pooranas.*—These Pooranas, next to the Vedas, are accounted the most sacred works of the Hindoos. They are eighteen in number, and are said to be the work of the same Vyausa who is accredited with the compilation of the Vedas. It is laid down that a Poorana should treat of five subjects, primary creation, secondary creation, the families of the patriarchs, the reigns of the Menoos, and the dynasties of kings; but in point of fact none of them carry out this intention, and they afford internal proof of being compiled by different hands at different times. None of them are of very high antiquity. The oldest may possibly have been composed about the eighth or ninth century A.D., and the latest about three or four centuries ago. In their sectarial views; the prominence they allot to some one deity, or to his incarnations; the importance they attach to certain observances, as fasting on the eighth, eleventh and fourteenth days of each half month; the holiness they attribute to certain places; and in the often frivolous legends which they have grafted on to the more dignified inventions of antiquity; they betray the purposes for which they were composed, namely the propagation of new dogmas and the belief in new gods. The Hindoos themselves have controversial doubts as to the authority of the Bhagavata, the most popular of the Pooranas, and many pundits regard it as the uninspired work of a grammarian named Vopadeva, who lived in the twelfth century. There is little doubt that the Brahmaveivarta Poorana is still more modern. It treats of Krishna and his favourite mistress Raudhah; and although the worship of Raudhah is now very popular, especially in Western India, all the other Pooranas, the heroic poems, and the popular literature of the Hindoos before the last four centuries, are silent concerning her. The Pooranas in their

trowel, &c. The real worship of the population consists in doing homage either to demons to avert their displeasure, or to deities who rule such demons to induce their interposition. The former worship is more constant than the latter. But

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present form were designed to uphold the doctrines of rival sects, who were engaged in contest in religious supremacy especially in Northern India from the third to the ninth or tenth centuries. Their earliest efforts were directed against Booddhism, which disappeared before them. A list of them as known in Southern India is given in a later note. (27) *Tantric Worship.*—This is a dark and mysterious phase of the Hindoo religion. Its history is obscure, and its founders are unknown. From its nature only, as it is based on phallism, it is evidently a faith belonging to early nations. Its origin as a special religion is said to have been in North-eastern India some two thousand years ago, but it may be immensely older. Tantric worship is based on the theory of the combination of human excess with religious contemplation. The Tantras themselves assume the form of a dialogue between Shiva and his wife Parvaty. The doctrine specially inculcated is the worship of the Shacty, or female energy of divinity. Parvaty herself thus becomes the object of worship. That the religion was once widely prevalent is shown by the hold it still retains on the population in Bengal. The ritual under it is extreme, and this is probably not a corruption but the original form of the creed. In Southern India it is not indigenous. It has representatives however, especially the Canchoolyas elsewhere described. (28) *Coomaurila Bhatta.*—Coomaurila Bhatta was a Brahmin of Berar. In the eighth century he excited an opposition to the Booddhists and Jeinas. This movement has been exaggerated by tradition into an extermination of Booddhists from the Himalayas to Cape Comorin, but the fact that the decadence of the Booddhists is united with his name, shows that he initiated a movement. His doctrine was a revival of the old Adweita philosophy. He travelled into Southern India, and it is said had for disciple Shuncaracharya next to be named. (29) *Development of Shiva Worship in the South, or the Smarta Shiveite Sect of Shuncaracharya.*—A number of works are current in the south of India relating to this teacher, under the titles of Shuncara Charitra, Shuncara Katah, Shuncara Vijaya, or Shuncara Digvijaya; all following the same course of narration, and detailing little more than Shuncara's controversial victories over various sects. Of the two principal works of the class one is attributed to Anandagiry, a pupil of Shuncara; the other is the work of Madhwacharya, the minister of some of the earliest chiefs of Vijianugger. This last is a composition of high literary and polemical pretension, but not equally high biographical value. Some particulars of Shuncara's birth and early life are to be found in the Keralolputty, or political and statistical description of Malabar, although the work is sometimes said to have been composed by Shuncara himself. With regard to the place of Shuncara's birth, and the tribe of which he was a member, most accounts agree to make him a native of Cranganore in Malabar, of the tribe of Numboory Brahmins, and in the mythological language of the sect an incarnation of Shiva. According to other traditions, he was born at Chidambaram in South Arcot district, although he transferred his residence to Malabar. He is said to have been born of a Brahmin mother by a low-caste father. That there was something unusual about his birth is to be inferred from the fact that afterwards, when on his return home, he was called to perform the funeral ceremonies of his mother, the Brahmins refused their co-operation. Shuncara, it is said, produced fire from his arm, erected the pyre in the garden of his own house, and concluded the ceremony alone. In Malabar he divided the four original castes into seventy-two, or eighteen sub-divisions each, and assigned them to their respective rites and duties. All accounts concur in representing Shuncara as leading a wandering life, and engaging in successful controversy with various sects, whether of the Sheiva, Veishnava, or less orthodox persuasions. In the course of his wanderings he established several matts or convents under the controul of his disciples, particularly one still flourishing at Shringairy, on the Western Ghauts, near the sources of the Toongabudra. Towards the close of his life he repaired as far as to Cashmeer, and seated himself, after triumphing over various opponents, on the throne of Saraswatee. He next went to Badaricaushrama, and finally to Kedauranauta in the Himalaya, where he died at the early age of thirty-two. The events of his last days are confirmed by local traditions, and the Peeta or throne of Saraswatee on which Shuncara sat is still shown in Cashmeer; whilst at the temple of Shiva at Badaree a Malabar Brahmin of the Numboory tribe has always been the officiating priest. The system advocated by Shuncara continues to influence the creed of the Sheiveite Brahmins to the present day. It is based on the Vedanta philosophy, and holds the adweita interpretation of that philosophy. There is but one true substance, Brahm Parabrahm. But on the other hand as the mind of man cannot elevate itself to the contemplation of the inscrutable first cause and only soul, he may be contemplated through inferior deities. The influence exercised by Shuncara in person has been perpetuated by his writings, the most eminent of which are his Bhashyas or commentaries on the Sootras or aphorisms of Vyausa. Shuncara is said to have had four principal disciples, in the popular traditions called Padmapauda, Hastamalaca, Sooreshwara or Mandana, and Trotaca. (30) *Development of Vishnoo Worship in the South, or the Veishnavite Sect of Ramaunoojacharya.*—The supremacy of Shiva worship did not remain long unchallenged. Towards the end of the eleventh century Ramaunooja, a follower of Vishnoo undertook to depose Shiva and to substitute his own divinity. Ramaunooja was born in Shreepermatore near Madras, and studied at Canjy, where he taught his system of the Veishnava faith. His Tamul name was Yembramaunaur, and he was the last of twelve Tamul Auzhwar or religious Veishnavite leaders. His works and those of the other eleven go under the title of Tiroomozhy, or "sacred writ;" and are all written in Tamul. Of the twelve Ramaunooja was the only polemical writer. Next in fame to him was the Shreevillipoottore Auzhwar in the South Pandya country. After leaving Canjy, Ramaunooja resided at Shreerungam near Trichinopoly, in an island formed by the division of the Cauvery river. He subsequently visited other parts of India and was successful in converting many from Shiva worship. Tripatty the largest and richest temple in the peninsula, situated in North Arcot district, was taken from the votaries of Shiva by Ramaunooja and his disciples. On his return to Shreerungam, the disputes between the Veishnava and Sheiva religions became exceedingly violent, and the Chola ruler who, according to some accounts was at that time Caricaula Chola, being a devout worshipper of Shiva, commanded all the Brahmins in his dominions to sign an acknowledgment of the supremacy of that divinity. Ramaunooja would not conform, and the king sent to seize him. With the assistance of his disciples he effected his escape, and ascending the ghauts found refuge with the Jeina king of Mysore, Vittaldevar or Vellaula Roya. In consequence of rendering medical service to the daughter of this prince, he obtained his regard and finally converted him to the Veishnava faith; whereupon the Rajah assumed the title of Vishnoo Varddhana. Ramaunooja remained several years in Mysore at a temple founded by the Rajah on Yadavagherry, now known as Mailcotay. On the death of the Chola king, he returned to Shreerungam on the Cauvery, and there spent the remainder of his life in religious seclusion. In his philosophical system, Ramaunooja inculcated what is technically called the Vishishtadweita doctrine, that is, the "almost non-dual." The divine soul and the human soul were not absolutely one as the Adweita system taught, but were closely related. Final beatitude was to be obtained not by knowledge only; devotion and the usages of public worship were also required. Para Brahm was identified with Vishnoo, whose superiority was asserted. No prominence was given to the incarnation of Krishna since become so popular. Ramaunooja is said to have founded 700 religious houses. One of them remains at Mailcotay above-mentioned in Mysore. He also established 74 hereditary teacherships amongst his followers, the representatives of which are still found in Southern India, at Conjeeveram, Shreerungam, &c. The followers of Ramaunooja are called either Ramaunoojeeyas or Shree Veishnavas. (31) *The Veishnavite Sect of Madhwacharya.*—At nearly the same period as Ramaunooja another Southern Brahmin Anantateerta, born at Calyauna on the Malabar coast, pushed still further than Ramaunooja the reaction against the idealism of the school of Shuncara. Another of Anantateerta's names is Madhwacharya. In the Sarwadarshanasangraha he is cited by the name Poornapranya. A work is also quoted as written by him under the name of Madhyamandira. He was the son of Madhige Bhatta, and was born in the Saca year 1121 (A.D. 1199). According to the legendary belief of his followers, he was an incarnation of Vayoo, or the god of air, who took upon himself the human form by desire of Narayana, and who had been incarnate as Hanooman and Bheema in preceding ages. Originally a Sheiveite he became a pervert to Vishnooism. He was educated in the convent established at Ananteshwara, and in his ninth year was initiated into the order of ascetics by Achyootaprajah, a descendant of Sanaca, son of Brahma. At that

the distinction between the two cannot always be ascertained. The Dravidians conceive that hosts of demons surround them. These may have their origin in many ways; but most frequently at the present day they are the disembodied

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early age also he composed his Bhashya, or commentary on the Geetah. This he carried to Badaricaushrama, in the Himalaya, to present to Vedavyausa, by whom he was received with great respect, and presented with three Shalagrams. He brought back and established these as objects of worship in the Mutts of Oodipy, Madhyatala, and Soobramanya. He also erected and consecrated at Oodipy the image of Krishna, that was originally made by Arjoona, of which he became miraculously possessed in the following manner. A vessel from Dwarca, trading along the Malabar coast, had taken on board, either accidentally or as ballast, a quantity of Gopichandana or sacred clay from that city, in which the image was immersed. The vessel was wrecked off the coast of Tooloova, but Madhwa receiving divine intimation of the existence of the image caused it to be sought for, and recovered from the place where it had sunk, and established it as the principal object of his devotion at Oodipy, which has since continued to be the head-quarters of the sect. He resided here for some time himself, and composed thirty-seven works. The principal of these are the Geetabhashya, Sootrabhashya, Rigbhashya, Dashopanishadbhashya, Anoovaucaunoonayavivarana, Anoovedantarasapracarana, Bhauratatautparyanirnaya, Bhaugavatatautparya, Geetatautparya, Krishnaumritamaharnava, Tantrasaura. After some time he went upon a controversial tour, in which he triumphed over various teachers, and amongst others, it is said, over Shuncaracharya. He finally, in his 79th year, departed to Badaricaushrama; and there continues now to reside with Vyausa, the compiler of the Vedas and Pooranas. Before he quitted Southern India Madwacharya very considerably extended his followers, so that he was enabled to establish eight different temples, in addition to the principal temple at Oodipy. In these were placed images of different forms of Vishnoo, and the superintendence of them was entrusted to his brother and eight sanyausies, who were Brahmins, from the banks of the Godavery. The images were Rama with Seeta; Seeta and Lutchman; Kaleeyamardana, with two arms; Kaleeyamardana, with four arms; Soovitala; Soocara; Nrisimha; and Vasantavittala. He taught that matter, souls of individuals, and the deity, that is to say Krishna or Vishnoo, are so many irreducible and eternally distinct essences. This was to make a step in the direction of the fundamental principle of Saunkhya deism, that is to say to a system which had not in the main the tendencies of Veishnavism. And Anantateerta was by profession a Vedantist. But in spite of the close affinity of the theory of the Avatars with Vedantic ideas, it cannot be doubted that there existed early a Veishnavism with a Saunkhya metaphysics. The followers of Anantateerta strictly speaking are all Brahmins, for, in opposition to Ramaunooja, Anantateerta was a strict observer of the distinctions of caste; but the doctrine called the doctrine of the Dweita or duality is widely spread among the masses, and the popular songs of the Teloogoo and Canarese Dausas, many of whom are of low caste, extol it with a sectarian fervour bordering on fanaticism. This sect is fully described in a later note. (32) *The Lingayets or Jangam Sheiveites Sect.*—In the south and west of India about the twelfth century a new sect of the Sheiveites arose, between whom and the disciples of Ramaunooja a religious conflict was carried on, in which the Rajah of Calyaunapoora was killed and his capital was destroyed. Basava, the founder of this sect, was the son of a Shiveite Brahmin. When a boy he refused to wear the sacred thread, because the initiatory rites demanded adoration of the sun. He went with his sister (A.D. 1135) to Calyaunapoora in the Deccan, then the capital of the Carnataca kingdom, whose ruler was a Jain. Here he joined his maternal uncle, a Brahmin and the minister of the king, who gave him employment and married his daughter to him. When the former died, Basava became prime minister. The creed of Basava was a monotheism, embodied in the worship of Shiva. The lingam, as the image of Shiva, was always to be borne on the person, and called Jangamalinga or locomotive image, otherwise living being; in contradistinction to the lingams erected in Shiva temples, called Stauvaralinga or stable image. His ethical teaching was the abolition of caste. This sect also will be found fully described in another note. (33) *Alleged influence of Christianity on early Forms of South Indian Faith.*—It has been surmised that some of the traditions concerning Basava just mentioned might have been borrowed from the legends current among the Syrian Christians, whose country bordered on that of Basava. Cosmas Indicopleustes states that in the sixth century there was a Christian Bishop at Calyauna, on the coast near Oodipy; or the same locality where Basava was prime minister six centuries later. It seems indeed by no means improbable that the early Christian religion affected in this way other modern philosophic schools of Southern India. In addition to the case of Basava just mentioned, Shuncaracharya was born not far from Cranganore, and Madwacharya the founder of the sect which approaches nearest of all to Christianity was a native of Oodipy. (34) *The Shatauny Veishnavite Sect.*—About the end of the fifteenth century there arose in Bengal a new form of Vishnoo worship introduced chiefly by Cheitanya, born at Nuddea, in the year 1485. At the age of twenty-four Cheitanya, like Sakya Moony, abandoned his domestic life, and began his career as a religious devotee and teacher. For some time he settled at Cuttack and was engaged in the worship of Juggernaut, to whose festival at Pooree he communicated great energy and repute. Later in life he fell into a condition of mental derangement, and disappeared mysteriously about the year 1527. Cheitanya's work in Bengal was the counterpart, though in the name of another deity, of Basava's on the West Coast. His doctrinal teaching consisted in the worship of Krishna as a form of Vishnoo. Equally with Basava he desired to abolish all caste distinctions. This sect is represented in the south by the Krishna worshippers called Shataunies. (35) *Consequences of the Arrival of the Mahomedans in Southern India.*—When the followers of Basava were contending in Southern India with the Brahminical priesthood of Vishnoo, the Mahomedan invasion of India occurred; which had the effect of crushing both sects of disputants. This event marks the end of any large religious movement in Southern India. (36) *The Veda Samauj.*—Ram Mohun Roy (who was born at Burdwan in 1772, in Lower Bengal, and died in England in 1833), believed that the Oopanishads, rightly interpreted, contained pure deism, and he endeavoured to persuade his fellow-countrymen to renounce idolatry by appeals to tradition. With this aim he translated and published a certain number of the texts, and expounded his views on reform at the same time in original treatises. In 1830 he founded in Bengal the Brahma Samauj. The "Veda Samauj" was established at Madras in 1864, as a branch of the Bengal Brahma Samauj, and in 1871 it took the name of the "Southern India Brahma Samauj." In the former title the word Veda was used not merely as signifying the Hindoo sacred books, but in its literal sense as including in its scope "the teachings of nature and intuition." The "Brahma Samauj" means "the worshippers of Brahma," an unsectarian name of the deity. The principles and articles of faith are the same as in the parent society. All alike reject caste and idolatry, and believe in a supreme god of the universe.

[25] CONSPECTUS OF THE DEITIES AND GODS OF THE SOUTH INDIAN HINDOO PANTHEON—INTRODUCTION.—The following is an abstract tabulation of the pantheon, and more particular notices of each deity and god mentioned will be found in the Glossary and Index. The classification follows that of Ziegenbalg in his "Malabar Gods" (republished, Higginbotham, Madras, 1869). (2) TUTELAR DEITIES AND DEMONS.—*Gramadevatas.*—These are village or tutelar deities, who guard towns, villages, hamlets, fields, &c., from evil spirits. They are worshipped in numerous small temples, in front of which there is a sacrificial altar. Sacrifices consist of cocks, goats, swine, and buffaloes. With one exception all the Gramadevatas, properly so called, are females, and most of them are caricatures of the Hindoo Parvaty or Shacty. They are believed to cast out devils when the latter take possession of men, and in fact to exercise a general authority over them. They are represented by uncouth and often monstrous images. Their temples contain other figures, representing principal demons, Vigneshwara the belly-god, and sometimes different forms of Shiva. Annual festivals, lasting seven, eight, or nine days, are celebrated in honour of each one of the Gramadevatas. Their names are as follows. (3) *Ayenaur.*—He is the only male among the Gramadevatas, properly so called. He is considered to be a powerful ruler of demons. He is the son of Shiva and Vishnoo, the latter being Vishnoo in the female form called Mohiny. He is on this account called Harihar or Vishnoo-Shiva. He has two wives, named Pooranay and Poodcalay, who are worshipped concurrently with him in his numerous pagodas. (4) *Yellamma.*—She is identified with the Hindoo Renooca, that is to say the wife of the Rishy Jamadagny and the mother of Parshoorama. Round her head are serpents.

spirits of human beings who have met with violent or sudden death. The greater number of the demons live in trees, but some wander to and fro. Sometimes they occupy houses. Sometimes they even occupy the body of a living man, when all which he does is the demon's act. As a rule they cause no more than malady to the living. For accidents and disease among cattle, and for ruin or mishaps such as loss in trade, they are responsible. In fact the unseen world is ever hostile. Europeans and Mahomedans are not molested by demons, who afflict only the

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The principal images found in her temples besides that of herself, are those of her husband and son mentioned above. The priest in her pagodas is a Pandauram or Sheiva devotee. (5) *Mariyammen.*—She is the goddess of small-pox, measles, and similar diseases. Near her pagodas stand small edifices with various images, the principal one of which is that of Kauttaun, a powerful demon. There are also figures of clay to be found within and without the enclosures of the pagodas presented in fulfilment of vows by people who recover from small-pox. In the richer pagodas she receives an offering daily, in the poorer pagodas only on Friday. In her honour an annual festival takes place, which lasts eight days. (6) *Ancalammen.*—In her pagodas stand besides herself several images. Of these may be specially named Veerabhadra, said to have 1,000 heads and 2,000 arms, and to have been produced by Eeshwara for the purpose of destroying the great sacrifice of the king Dacsha; Periya Tumbiraun (the great god), the god whom Dacsha designed to enthrone in the place of Eeshwara; and Cauttairy, a terrific demoness. Ancalammen has four arms and hands. She is worshipped every Friday or oftener. Like the other goddesses, she enjoys a yearly movable festival, lasting seven or nine days. (7) *Bhadrakalee.*—She has a fiery head and ten arms, and opposite to her stands a figure named Aghora, a form of Eeshwara. (8) *Pidaury.*—She is represented in a sitting posture, fire issuing from her body. She has four arms and hands. Her pagodas contain besides her own image that of the belly-god. The entrances to these pagodas are guarded by two door-keepers called Moonnadiyaur. The festival celebrated in her honour lasts seven or nine days. Those who commit suicide are supposed to be specially under her authority. (9) *Chamoondy.*—She is represented standing on the head of a giant Mahisha. In her pagodas, which are not numerous, besides that of herself there are several other images, the principal of which is that of the belly-god. (10) *Doorga.*—A female deity with a sheep's head. She also is represented standing on a giant. Amongst the various names given to her are Bhagiraty (goddess), Neely (the blue one), and Soondary (the beautiful). The principal images in her pagodas besides her own are those of the belly-god, Veerabhadra, and Bhadrakalee. She is supposed to give valour and to assist incantations. (11) *Malignant beings, from whom the Gramadevatas protect mankind.*—These are as follows. (12) *Peygel.*—Demons, who were according to the opinion of some created as such; but according to that of others were created in a higher form, and in consequence of misdeeds were cursed and changed to devils and banished from heaven to this world. Many of them are named after particular sins which they cause in mankind, of whom they take also sometimes bodily possession. Their number is said to be increased daily by the departed spirits of wicked men. (13) *Bhootas.*—Another sort of demons, created for the purpose of doing menial service to the gods, and of tormenting the wicked. They are said to be content with performing the lowest services for the gods, which is not the case with the Peygel. They assist the gods in keeping the devils in subjection. They execute the orders of the gods in punishing mankind. (14) *Racshasas.*—These are giants with many heads. Among these Ravana was king. They are fallen spirits now become monsters. (15) *Asooras.*—Another kind of giants, usually at war with the Devas or secondary gods. (16) THE DEVAS OR SECONDARY GODS, AND OTHER CELESTIALS.—These are said to be 330,000,000 in number, and to inhabit the Devaloca, also called Swarga, a place of delight and the abode of meritorious mortals, who become gods for a longer or shorter period according to their merits. The Devas have no temples erected in their honour, nor are they actually worshipped. They however receive marks of reverence at the sacrifices made to the Trimoorties and their families, and they come into prominent notice in the Pooranas, the secondary religious books of the Hindoos. Of the Devas are to be specially mentioned the following. (17) *Devendra.*—He is otherwise called Indra. His audience-chamber is so large that there is room in it for all the gods as well as for all the rishies and attendants on the gods. He is the chief of all the secondary gods. He presides over the seasons and crops, and is worshipped at the seasons of sowing and reaping. (18) *Indrauny.*—The wife of Devendra. (19) *Chitragoopta or Chitrapootra.*—He records the virtues and vices of mankind, and calculates the time when their lives are to end according to the destiny of each. (20) *Rishies.*—These are sages, said to be 48,000 in number, and to have obtained great gifts by practising austerities, so that they are able to be wherever they please, and need neither food nor sleep. The most famous among them are the following:—Agastya, Naurada, Gowtama, Vedavyausa, Poondareeca, Valmeeky, Vasishta, Vishwamitra, Doorvausas, Soota, Capila, Casyap, Marcandeya. (21) *Musicians and other attendants on the gods.*—Kinnaras, musicians and singers, having with the human figure the head of a horse; Kimpoorooshas, another kind of celestial choristers; Gandharvas, likewise a kind of celestial chorister represented with wings; Pannagas, celestial snake-charmers; Siddhas, saints enjoying the property of ubiquity; Vidhyaudaras, celestial scholars; Gananautas or Dootas, or messengers, divided into three companies, viz., Shiva-Dootas, or Shiva's messengers whose business is to carry the souls of the devotees of Shiva into his paradise Keilausa, Vishnoo-Dootas whose business is to carry the souls of the devotees of Vishnoo into his paradise Veicoonta, Yama-Dootas messengers of Yama, the god of death and king of hell, which is called Naraca and also Yamaloca, and said to contain various places of torment, into which the Yama-Dootas carry the souls of the wicked. In the Devaloca there are moreover also Devadausies, or female servants of the gods who correspond to the Devadausies or dancing-girls in the temples. (22) *Ashtadicpaulacas.*—These are the regents of the eight cardinal points and protectors of the earth:—Indra, the king of the secondary gods, regent of the east; Agny, the god of fire, regent of the south-east; Yama, the god of death and king of hell, regent of the south; Nirrity, a giant, regent of the south-west; Varoona, the god of the waters, regent of the west; Vayoo, the god of the wind, regent of the north-west; Coobera, the god of riches, regent of the north; Esaunyan, a form of Eeshwara, regent of the north-east. These protectors of the earth are invoked on various occasions, but more especially at the beginning of a festival, when the burnt-offering called Homa is made. (23) THE MOOMMOORTIES OR TRIMOORTIES.—The term means the three forms. They are the three great gods, said to have originated in the masculine power of the supreme or universal being hereafter to be mentioned. By some they are regarded as triune, but by the majority of the people only one of the three is considered as paramount. They are as follows, with their families. (24) *Shiva.*—He is the object of worship in the Shivamata. In Southern India, Sheiveites are the chief sect. Of Tamul people three-fourths are Sheiveites. Of this god are narrated 1,008 appearances, according to which he has 1,008 names, and is almost in every place called by a different title. The paradise where he resides is called Keilausa. His principal attendants, who are always with him, and whose images stand in his pagodas by the side of his own image, are the following:—Nundikeshwara, a form of Shiva; Bheirava, another form of Shiva; Coondodara, his umbrella-bearer; Dwaurapaulaca, two door-keepers; Aroopattmoover, the sixty-three persons whom Eeshwara is said to have taken into bliss visibly in their bodies, and among whom Dandeshwara is the most celebrated and most favoured. There is moreover in front of the larger pagodas Eeshwara's vehicle, a bull called Nundy, or in Canarese Basava. Shiva's family consists of the following members. (25) His wives, two in number, viz.:—"a" Parvaty (the mountain-born), who is by the Sheivas identified with the Shacty hereafter to be mentioned and worshipped in Shiva's pagodas under very numerous names, and carried about with him at his festivals. "b" Gangah, the river Ganges, and also the goddess of water, who is represented on paintings by a figure half woman and half fish; but her image is not to be found in any pagoda. She is honoured by the act of bathing with ceremonies. Gangah is said to have eight play-mates, which are likewise rivers, whose water is, like that of the Ganges, regarded as holy and efficacious for purification from sin. Their names are:—Yamoonah (Jumna); Saraswatee; Sindhoo (Indus); Nerbudda; Godavery; Cauvery; Mannairy; Canya. Frequently however only seven sacred rivers are enumerated, among which Gangah herself is one, whilst the Indus and Mannairy are excluded. Frequently again four more are added to the seven, viz., the Indus, Krishna,

inhabitants of the country. The visitations of demons are met by ceremonies, incantations, and sacrifices; and in all serious cases the latter require that blood should be spilt, so that living animals must be included in the offering [27]. Demons are held ordinarily to do no good, but only much harm; and hence all offering made by the people is to turn away wrath. But in one respect demons lend themselves to the purposes of mankind, if on the occasion of a great solemnity or celebration a person himself invokes possession with a view to soothsaying.

Toongabudra, and Tambrapurny a small river in Tinnevelly. (26) His sons, two in number, viz.:—"a" Vigneshwara (lord or remover of obstacles), who as the god of wisdom is represented with an elephant's head. The most common of his names are Pillaiyar (the son), Vinayak (the great lord), Ganapaty or Ganesh (lord of hosts). He is called by Europeans the belly-god, on account of the protuberant belly which is one of his attributes. In his honour many small pagodas are erected, in which he is daily worshipped with offerings. His image stands everywhere by the way-side, under trees, in thoroughfares, and in all the pagodas of Shiva. He obtains always the first offerings "b" Soobramanya (the diamond-like). He has many large pagodas of his own, and is also like Vigneshwara found and worshipped in all the pagodas of Shiva. He has many names and six faces, though he is sometimes also represented with one only. His two wives are Valliyammay (jewel-matron) and Devayaunee (divine elephant); both of whom are represented as ordinary mortal women. (27) *Vishnoo.*—He is the object of worship in the Vishnoomata. All who profess this religion regard Vishnoo as the highest god, the creator, preserver, and saviour. He has many names and many pagodas, and almost in every one of them he is called by a different name. He is said to have undertaken ten Avatars, or incarnations, in the following order. (28) Matsya-avatar, in which he transformed himself into a fish, in order to fetch the Vedas from the bottom of the sea, where a giant, who had stolen them from the world of the gods, had concealed them. According to other accounts, Vishnoo dragged, in the form of a fish, the vessel in which the seven rishies and their wives were preserved in a general flood. (29) Coormavatar, in which he assumed the form of a tortoise, and thus supported the mountain Mandara, in order to enable the gods to churn therewith the sea of milk, for the purpose of obtaining the beverage of immortality called Amrita. (30) Varauhavatar, in which he transformed himself into a boar, in order to lift the earth, which had sunk into the ocean. (31) Narsimha avatar, in which he assumed the form of a man with the head of a lion, and destroyed the giant Hiranyacaship. (32) Vaumanavatar, in which he assumed the form of a dwarf-Brahmin, who deceiving the monarch Mahabaly took the government of the world from him, and drove him down to hell. (33) Parshoorama avatar, in which he became a man named Parshoorama, whose parents were the Rishy Jamadagny and his wife Renooca, the latter being often identified with the Gramadevata Yellamma. Parshoorama's mission was to humble the Cshatriyas, or the royal and warrior caste, of whom he is said to have slain a very large number. (34) Rama avatar, in which he became king Dasharata's first-born son, named Rama; who had three brothers, called Lakshmana, Bharata, and Shatroogna. Rama's special mission was to destroy the giant Ravana, king of Lunka (Ceylon), who had carried away his wife Seeta. In the war with this giant he was assisted by his brother Lakshmana, and the monkey-king Hanooman. (35) Krishna avatar, in which he was the son of Vasoodeva, but brought up in the house of the shepherd Nanda. Krishna performed numerous miracles, and more especially assisted his relatives the Puncha Pandavas, five royal brothers named Dharma or Yoodishtara, Bheema, Arjoona, Nacoola, and Sahadeva, in their war with Dooryodhana, the head of the Cooroos; so that the Pandavas regained their kingdom, whilst Dooryodhana and his brothers were killed. (36) Vegootwavatar, or plurality-incarnation, in which he was incarnate in his twelve disciples, the so-called Pannirand Auzhwar, through whom he extirpated the religion of the Booddhists and Jeinas, and established his own; for which reason those twelve devotees are now worshipped along with him in his pagodas. According to more recent beliefs, Balarama or Balabhadra, a foster-brother of Krishna, was Vishnoo's ninth incarnation. According to others Booddha himself. (37) Ashwa or Calky avatar in which he will, at the end of the present age, transform himself into a horse, and having destroyed the wicked, create a new world. (38) The first, second, and third incarnations are said to have occurred in the first age of the world, Krityoog; the fourth, fifth, sixth, and seventh in the second age, called Tretayoog; the eighth and ninth in the third age, called Dwauparyoog; and the tenth incarnation is to take place in the present age called Kaliyoog. (39) Vishnoo's family consists of the following members. (40) His wives, two in number, viz.:—"a" Lutchmee, the goddess of beauty and fortune, who is by the Veishnavas identified with the feminine power of the Parauparavast. She is also called Mahalutchmee, or the great Lutchmee, and said to contain the Ashtalutchmee, or eight Lutchmees, viz., Dhanalutchmee, the patroness of riches; Dhaunyalutchmee, the patroness of grain; Dheiryalutchmee, the patroness of boldness; Showryalutchmee, the patroness of bravery; Vidyalutchmee, the patroness of science; Kirttilutchmee, the patroness of fame; Vijayalutchmee, the patroness of victory; Rajyalutchmee, the goddess of kingdoms; and Santaunalutchmee, the patroness of offspring and marriage. Lutchmee is worshipped under various names in Vishnoo's pagodas, and she is even worshipped in those of Shiva. At one time she disappeared, but rose again from the sea of milk when it was churned by the gods and asooras (non-gods). When Vishnoo was incarnate in the person of Rama, Lutchmee was incarnate as Seeta. To Lutchmee is opposed Moodevy (the elder goddess, Lutchmee's elder sister), the goddess of misfortune. "b." Bhoomidevy, the goddess of the earth, who is however not worshipped, nor represented by any image. (41) His sons, viz.:—"a" Manmata (the confounder of the heart), or Cauma, the Indian Cupid, the god of love. He is said to be the mental son of Vishnoo, and to have become incarnate in Pradyoomna, the first-born son of Krishna. Manmata wounds the heart with his arrow called Caumabauna (love-arrow). He has a wife, named Ratty (desire), who assists her husband in inspiring love, and corresponds to Venus. "b" Coosha and Lava, Vishnoo's sons, in his incarnation as Rama. (42) *Brahma.*—Brahma the creator is said to write in the skull of every one how long he is to live and what will happen to him on earth and after death. He is also regarded as the author of the Vedas, which he gave to the Rishy Vedavyausa, to promulgate in the world. There are however no pagodas erected in his honour, nor is he worshipped; except under the form of the Brahmins, who are regarded as indirectly his offspring. (43) Brahma's wife, named Saraswatee, is regarded as the goddess of learning. She is not worshipped, except at an annual festival called Saraswateepoojah, or Saraswatee-worship; when poets, accountants, teachers, and pupils make an offering to her of their writing instruments, books, and accounts. (44) PARAUPARAVAST.—This, the universal being, is considered according to different philosophies to exist in one or other, or in all three, of the following three forms. (45) An immaterial, formless, and incomparable being (or the universal spirit), which has neither beginning nor end; from which all beings have emanated, and into which all will again return; and which is self contained all in all. (46) A visible material being (or the universe), represented by an image clothed with the fourteen worlds, or again and more usually by the lingam and yony. These symbols indicate that in the Parauparavast are united the masculine and feminine principles or powers. The figure is found everywhere, both within and without the pagodas, and is worshipped extensively. (47) A double-being, viz.:—"a" Shiva or Vishnoo as the case may be, the embodied masculine power of the Parauparavast or the father of all gods and all beings. The Sheivas or the worshippers of Shiva, call the masculine power of the Parauparavast by the name of Shiva; the Veishnavas or the worshippers of Vishnoo, name it Vishnoo or Narayana or Poorooshottama. "b" Shacty (power, energy), the embodied female power of the Parauparavast, or the mother of all gods, and goddesses, and all beings; who is also called Parashacty, that is to say the supreme Shacty, because from her all Shacties or goddesses have descended.

[26] COMPARISON BETWEEN THE DEITIES OF THE BRAHMINICAL SYSTEM AND THOSE OF GREECE, ROME AND EGYPT.—The following table will show the general correspondence between the principal Hindoo deities of Southern India and those of Greece, Rome and Egypt. The worship of Osiris and Isis more especially is nearly related in its essential points to the worship of Shiva and his consort Bhawany or Parvaty:—

The person possessed becomes then a devil-dancer. The places in which demons are worshipped are called "peycoils" or "devil temples." Some of these are small buildings resembling tombs. Others consist of a heap of earth raised into a pyramidal shape, and adorned with streaks of whitewash and red ochre, with a smaller heap showing a flat surface which forms the altar. In the vicinity of the devil-temple is a large tree, which is the devil's dwelling place. There is no priesthood attached to demon-worship. In ordinary ceremonies the head of the family, or sometimes that of the community, officiates. But any one may assume the function; and this is constantly done as the impulse comes, especially with regard to devil-dancing. Demon-worship in its most conspicuous form is found chiefly in South Canara, Malabar, Tinnevelly, and Travancore; that is to say wherever the Dravidian population has been least disturbed. The demon-festivals of Mangalore are well-known, and the Shaunaur or palm-cultivators of Tinnevelly are pre-eminent in following the rites of demonolatry. At the end of cycles of sixty years large demon-festivals are held in many parts of these districts [28].

Indian.	Greek.	Roman.	Egyptian.
Shiva	Ζεύς	Jupiter	Osiris.
Doorga	Δημήτηρ	Ceres	Isis.
Bhagavatee	Ἀφροδίτη	Venus	Isis.
Bhawany or Parvaty	Ἥρα	Juno	Isis.
Kalee	Περσεφόνη	Proserpina	Isis.
Annapoorna	Δημήτηρ	Ceres	Isis.
Ganesh	Ἥλιος	Janus	...
Nundy	Μινώταυρος	Minotaurus	Apis.
Vishnoo	Ζεύς	Jupiter	Osiris.
Lutchmee	Ἀφροδίτη	Venus	Isis.
Krishna	Ἀπόλλων	Apollo	Osiris.
Brahma	Ζεύς	Jupiter	Osiris.
Soorya	Ἀπόλλων	Apollo	Horus.
Coobera	Πλοῦτος	Plutus	...
Cartigay	Ἄρης	Mars	Papremis.
Yama	Πλούτων	Pluto	Serapis.
Indra	Ζεύς	Jupiter tonans	Osiris.
Vishwacurmah	Ἥφαιστος	Vulcan	Thoth.
Boodh	Ποσειδῶν	Neptune	Osiris.
Gangah	Στύξ	Styx	Nile.
Menoo	Μίνως	Minos	Menes.
Naurada	Ἑρμῆς	Mercury	Apis.

[27] SKETCH ACCOUNT OF THE SACRIFICE OF LIVING ANIMALS IN SOUTH INDIA.—Sacrifices are common to all races and religions. They assume the form of offerings of the raw products of the earth, of cooked food, of water, and of living creatures. In the sacrifice of living animals the ceremony is begun by performing the fire sacrifice, pouring ghee into a large fire. The poojarry, not a Brahmin, then strikes the head from the victim and large portions of its flesh being thrown into the fire and reduced to ashes, portions are distributed to the assembly. This being a prasaudham or food offered to the gods, all castes can partake of it. In some few cases Sheiva sectarians, when aversion to take life prevents them sacrificing an animal, substitute an image made of dough. With many also of the Sheivas the victim's head is not struck off, but it is strangled so that blood is not spilled. Living sacrifices are an essential part of the worship of all the tutelary village goddesses in Southern India, as also of the goddesses of cholera, small-pox, &c. Thousands of sheep and fowls are annually sacrificed. The lower classes of Hindoos of Southern India also, though rarely, sacrifice pigs to the inferior gods. Large herds of buffaloes were until recently offered at the funeral rites of the Todah race of the Neilgherries, but the Government have restricted the rite to the killing of a limited number of animals at a time, at the discretion of the local authorities. Human sacrifices were at one time considered requisite to appease goddesses and demons who guard hidden treasure. Living sacrifices form no part of the worship paid to any deity of the Veishnava sectarians, nor Vigneshwara, Soobramanya, &c., of the Sheiva sect or of their respective goddesses. In addition to the village deities the Shacty of Shiva, defined by her votaries to be the visible energy of the divine essence symbolized as a female, requires living sacrifices.

[28] SKETCH ACCOUNT OF DEVIL-WORSHIP IN SOUTHERN INDIA.—*Introduction.*—The Shaunaur of Tinnevelly inhabit the south-eastern portion of that district and gain their livelihood by cultivating the palmyra palm, the juice of which they extract and make into coarse sugar. In social position they come between the cultivators of the soil or Vellaular and the Pariahs. They are descended from a pure Tamul stock. Their ancestors came from Ceylon. Among these people Christianity has made remarkably large accessions. Their demon-worship however is typical of that in other parts of Southern India. In Siberia a system of demonolatry called "Shamanism" prevails. This was the old religion of the whole Tartar race before Booddhism and Mahomedanism were disseminated amongst them. The Shamanites acknowledge the existence of a supreme deity, but offer him no worship. The demon-worship of the Shaunaur and of the Siberians are said to be identical. (2) *The different kinds of demons.*—These were described in the note above as they appear when absorbed into the Hindoo pantheon; but they may be mentioned here again entirely from the point of view of the lower classes. There are in Tamul three words ordinarily used to express the idea of a demon or devil; "pey," "bhootam," and "pishauch." The "peys" take possession of men. The spirits called "bhootam" specially haunt the places where dead bodies are burnt or buried. Companies of them attend Shiva, Ganesh, and other deities. They are described as dwarfs of ugly appearance, with large bellies and very small legs. They would be called in English ghouls. The pishauch is the most actively troublesome of all the demons. However this classification is not always attended to by the people. One of the principal objects of superstitious dread is the demon called "Maudan," a word signifying "he who is like a cow." He is supposed to be very large and tall, his body being of a black colour and covered with hair, like that of a cow. Images of Maudan are never made. He is said to strike men and oxen with sudden illnesses, and is in consequence greatly feared. There are numerous forms of Maudan, to which many mischievous acts are ascribed. "Shoolaimaudan," or "furnace devil," is

Ruling the demons are certain principal demons who have attained the rank of deities. They are worshipped by men by way of mediation, to prevent the mischief of the lesser demons ; but they themselves will inflict harm if not worshipped. Again for every village there is at any rate one temple dedicated to a goddess who occupies this position inasmuch as she is specially tutelar to the locality. The presence of the goddess protects the village from sickness and disaster. So that there she will be worshipped for three causes ; because she is hostile, because she is mediatory, and because she is tutelar. All the village tutelar goddesses are called Ammen or Ammah, and the word means "mother." The village goddess bears one of the following particular names :—Ponniyammah or gold mother, Cunniyammah, Yegauttaul, Mootyaulammah or pearl mother, Tripoora Soondary or the beautiful of three cities, Periyammah or great goddess, Osoorammah, Shellammah,

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worshipped by potters, who dread his breaking their pottery while it is being burnt in the kiln. "Coomilimaudan," or "bubble devil," dances on the surface of the water. "Poroothoomaudan" is the "fighting devil." "Neechamaudan" is the "wicked devil." "Shoodalaimaudan," or "graveyard demon," dwells in places where corpses have been buried or burnt. Another popular demon is Mallan, "the Giant," revered especially by the tribes who inhabit the mountains of Travancore. His wife is Caroongauly, or "Black Kalee." "Cootty Shauttan," "little Shauttan," is a familiar spirit invoked in performing juggling tricks. Another demon is called "Mootchandimoopan" or "the old man of the three roads." He is said to lie hid at places where several roads meet, watching his opportunity to injure the passers-by. In numerous instances the spirits of wicked men are actually worshipped after death. A noted robber named Palavaisham was long the object of worship in Tinnevelly. (3) *Observances in connection with devils.*—Many children are named after demons, to whom they are dedicated to save them from infantile diseases. In some families the eldest son is named after the demon worshipped by the father's family, and the eldest daughter after that of the mother's family. The spirits of depraved men, or of those who have met with a violent death by drowning, hanging, or other means, become demons, as above said, wandering about to inflict injury in various ways upon mankind. Hence arose a special custom in the execution of murderers by hanging. It was supposed that their spirits would haunt the place of execution and its neighbourhood, to prevent which the heels of the criminal were cut with a sword, or hamstrung, as he fell from the tree. Certain hours of every day are held to be unlucky and dangerous. At noon, as well as at midnight (especially on Fridays), evil spirits are supposed to be roaming about, waiting to seize on those who walk from their houses into lonely places. Iron rings on the fingers or toes, or an iron staff, are considered to afford protection from such attacks. At night the demons call loudly, in order to allure people out of their houses into the distant jungle, where they can kill them. Hence calls at night are never responded to until the fourth repetition, for devils will only call thus three times. At the period of puberty, and after child-birth, women are peculiarly liable to the attacks of demons, and they are the cause of convulsions and similar disorders. The sudden illnesses of children and adults are held to arise in this way. Claims to witchcraft, divination, and magical skill are made by very many of the demon-worshippers. (4) *Particulars of the ritual of devil-worship.*—The priests who officiate in the worship paid to evil spirits do not belong to any hereditary or exclusive class, like that of the Brahmins amongst the upper-class Dravidians. Any one, even a woman, may act as priest or devil-dancer, if they are duly inspired by the demon invoked. The "Peycoils," or devil temples, are very numerous throughout the country. They bear no resemblance to the large Brahminical temples. Images are no essential element in demon-worship; where they are found they have been adopted from the Brahminical worship. In front of the devil temple, or sometimes without any covered edifice, there stands a small pyramidal erection or obelisk four or five feet in height, generally built of brick and stuccoed, which is always associated with this worship, and takes the place of an image. Inside some temples are placed the implements and symbols of demon-worship ; dancing-sticks or wands, the priests' garments, trident, &c. In others are found one or more images of the demon to whom the temple is dedicated. The devil-dancer's garments consist of a high conical cloth cap, with tapes hanging down at either side, probably to represent long shaggy hair ; a jacket with embroidered representations of devils worked in red, to denote their blood-thirsty character ; and a pair of short drawers, corresponding in style, with small bells attached to the border. A thick club and long wand, ornamentally painted and having iron rattles or jingling brass rings at either end, are also held in the hand while dancing ; with sometimes a trident, sacrificial knife, bangles for the ankles with brass bells, and occasionally other instruments or ornaments. The principal feature of the worship consists in animal sacrifices and libations of blood. Doubtless human sacrifices were once offered ; but the custom in South India now is to offer in sacrifice, on important occasions, sheep, goats, fowls, and pigs. Connected with the sacrifices is devil-dancing, in which the demoniacal possession is sought. Certain ceremonies are at times observed in order to drive out and dispossess a devil, but on these occasions it is desired to bring him into the soul of the worshipper ; who is then considered to become his inspired oracle, and to utter prophecies, and give other information for the guidance of the assembled crowd of worshippers. These more important sacrifices and festivals are held annually ; or occasionally as may be considered necessary, in times of prevalent disease, or in fulfilment of vows previously made. Funds for the necessary expenses are contributed by those interested. Night is the season chosen for the principal performances, and the festival usually continues for two or three days and nights. The officiating priest, whoever he may happen to be, is dressed for the occasion in the vestments and ornaments appropriate to the particular devil worshipped. The musical instruments frequently used in the devil-dance are the tom-tom, or ordinary Indian drum, and the horn, with occasionally the addition of a clarionet. But the favourite instrument is that which is called 'the bow.' A series of bells of various sizes is fastened to the frame of a huge bow, the strings are tightened so as to emit a musical note when struck, and the bow rests on a large, empty brazen pot. This instrument is played on by a plectrum, and several musicians join in the performance. One strikes the string of the bow with the plectrum, another produces the bass by striking the brazen pot with his hand, and the third keeps time by a pair of cymbals. When the preparations are completed, and the devil-dance is about to commence, the music is at first comparatively slow, and the dancer seems impassive and sullen, and either stands still or moves about in gloomy silence. Gradually, as the music becomes quicker and louder, his excitement begins to rise. Sometimes he uses medicated draughts, cuts and lacerates his flesh till the blood flows, lashes himself with a huge whip, presses a burning torch to his breast, drinks the blood which flows from his own wounds, or drinks the blood of the sacrifice, putting the throat of the decapitated goat to his mouth. Then, as if he had acquired new life, he begins to brandish his staff of bells, and to dance with a quick, but wild and unsteady step. Suddenly the afflatus descends ; marked by a glare of the eye and leaps of the body. The dancer stares and gyrates. The demon has taken possession of him. Though he retains the power of utterance and of motion, both are under the demon's control, and his separate consciousness is in abeyance. The bystanders signalize the event by raising a long shout, attended with a peculiar vibratory noise, caused by the motion of the hand and tongue, or the tongue alone. The devil-dancer is now worshipped as a present deity ; and every bystander consults him respecting his disease, his wants, the welfare of his absent relatives, the offerings to be made for the accomplishment of his wishes, and in short respecting everything for which superhuman knowledge is supposed to be available. One of the principal devil temples is situated at Agasteshwaram, near Cape Comorin. This is also the head-quarters of the Shaunaur tribe, where their Naudan or chieftain resides, who was formerly allowed the privileges of having a fort, of riding in a palankeen, and of retaining 100 armed attendants.

Yellammah, Padeivettammah, Tooloocaunammah, Moottoomaury, Polairammah, Caricauttah, Taundoniyammah, Tandoomaury, Mallammah, Chinnammah, Ammannammah, Chandeshwary, Vadivauttah, Naugauttammah. The representation of the goddess in such temples is generally a black stone or a piece of wood, and seldom an image. A poojarry, who is not a Brahmin, is appointed for the daily worship. He anoints the symbol of the deity daily, and puts ashes on her head. For offering he breaks a cocoanut in front of the idol. This is the commonest offering. The villagers make frequent vows to the goddess, promising sacrifices if she fulfils desires, and occasionally they collect money by subscription and celebrate a principal feast. When any member of a family is seized by sickness, the poojarry is consulted, who announces to the worshipper the offering that must be presented. If cholera or other large epidemic breaks out, the village deity will rise into importance and the sacrificial rite will be more frequently performed. The Mariyammen of the Tamuls is specially a deity of the small-pox, causing or protecting from that disease. When a person is attacked with small-pox it is understood that this goddess has taken possession of the patient. She appears in three forms :—as Tattammavauroo or Chinnammavauroo, that is to say small goddess or measles ; Peddammavauroo, that is to say, great goddess or small-pox ; and Peirammavauroo or goddess of green gram. The two first are the most feared. Sacrifice is specially made to the village goddess at sowing time and harvest ; also for rain or fair weather. Besides the village deities many minor deities of a similar class are worshipped without temple and in secluded spots. A rude unhewn stone, a stump of a tree, or even a lump of clay placed under the tree represents the deity. The object is usually marked with black or red pigment. When the shrine indicates Ayenaur, the only male among the tutelar deities, propitiatory offerings are made with clay effigies of horses ; on these the demon rides by night. The religion of the Todahs of the Neilgherry hills exhibits some peculiarities. These are the prominence given in their worship to offerings of milk and clarified butter, their freedom from the worship of idols, the religious veneration with which they regard a sacred bell which is hung up in their temples or dairies, and their exclusion of women from all share in the rites of worship and even from the precincts of their temples. Though they do to a certain extent practise demonolatry, they do not do so with the enthusiasm of other primitive races of South India. Such peculiarities may be noticed, but they do not appear to indicate anything more than a modification of the ordinary Dravidian religion under local circumstances.

56. Serpent worship is foreign to the Dravidians, but it has penetrated into all parts of Southern India. In many villages carved representations of the cobra are found set up in groves, by road sides, or under the sacred peepul tree. The oldest are those of the single cobra, semi-erect with expanded hood ; the next are the stones on which are shown the intertwining of two snakes after the fashion of the Æsculapian rod ; the most modern are the three, five, and seven headed serpents, forming canopies over the gods and goddesses of the Brahminical pantheon. Offerings are daily made at these shrines where they exist, and the snake god is as commonly propitiated as any other of the village deities. Every woman who desires to have offspring, no matter what her professed religion, brings offerings of milk, ghee, eggs, or flowers to the naga. In many places the living serpent is to this day propitiated. At Vyasarpaudy, close to Madras, this worship draws crowds of votaries. The traces of serpent worship are most frequent in those districts where the Jeina religion now prevails. The temple of Soobramanya in South Canara is at the present day the principal seat of this worship in Southern India [29]. The

[29] Sketch Account of Serpent-worship in Southern India.—*Relics found of ancient serpent-worship.*—These are general throughout peninsular India. The sculpture is invariably of the form of the Naga or cobra, and almost every hamlet has its serpent deity. Sometimes this is a single snake, the hood of the cobra being spread open. Occasionally the sculptured figures are nine in number, and this form is called the "Navanauga," and is intended to represent a parent snake and eight of its young ; but the prevailing form is that of two snakes twining in the manner of the Æsculapian rod or the caduceus of Mercury. Ceylon sculptures show a greater admixture of serpent worship than are to be found in similar representations on the continent of India. The three or seven headed Naga is found adorning almost every sacred spot in that country. The three Ceylonese historical works which have been translated, the Mahavanso, the Ratnaucara, and Rajauvaly, all commence with an account more or less detailed of the conversion of the Nágas of Ceylon by Booddha himself. Snake stones are generally in sets of three. The first represents a seven-headed cobra and is called Soobramanya. The second is a female, the lower portion of whose body is that of a snake. The third represents two serpents entwined, the children of the two former, with sometimes a lingam between them. These three representations are necessary to form a complete and orthodox group. In the neighbourhood of

worship paid to rough stones is a widely spread feature in the ancient religions, and in the majority of its phases is connected with that phallic or lingam worship which now confined to India prevailed in early times throughout Southern and Western Asia and even penetrated into Europe. The history of the introduction of the latter into Southern India is mysterious, but the present facts are simple. The various shapes in which the reproductive power is popularly typified in this

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Hassan and Halabeed, in Mysore, a frequent subject amongst the Jeina remains is the figure of a naked woman twined with a serpent encircling the right thigh. This is always accompanied by a smaller figure, clothed as for a cold climate, in a posture of adoration. The latter enigmatical figure is found also in the Kistna district. Snake stones are most numerous within and around Jeina temples. It may be stated of these stones generally that they all have an appearance of extreme antiquity, and are blurred, worn, and mouldered by age; and though all castes regard them with some sort of awe or superstitious respect, none appear to claim them as specially pertaining to themselves. (2) *Modern observances in connection with serpents.*—There is a great deal of serpent worship in South Canara, and on one of the highest mountains of the Ghauts, named Soobramanya, there is one of the most famous serpent temples in India. The locality is extremely wild and feverish, more especially during the cold and dry seasons; nevertheless great numbers of pilgrims resort thither, especially during the December festival called Kookkey Shashty, when a great cattle-fair is also held at the foot of the mountain. The temple has no architectural pretensions, being indeed mostly constructed of laterite. The sanctuary in the centre contains the idol Soobbaroya or serpent-lord. The image is only a shapeless block of granite. In the Travancore forests, on the bank of one of the many rivers flowing thence to the western sea, there is a small granite temple finely sculptured, considering its situation. And in the bed of the river opposite there rises a tall rock called Paumboopaura ('Snake rock'), a shining band, suggestive of a serpent's trail, winding round it from bottom to top in a remarkable manner, apparently caused by micaceous veins in the rock. It is held extremely sacred. No Brahmin acts as a priest in any serpent rites, and it is to be remembered that the Jains of Southern India have ever been the deadly foes of the Brahmins. No one will point at snake stones as it is believed the finger that so pointed would wither from off the hand. Women lay offerings of flowers before them and touch the sculptured heads with paint, believing they will be thereby blessed with children; but men very seldom offer any sort of adoration to these objects. Snakes are kept in houses in Ceylon and Goozerat, partly as objects of worship, and partly to destroy rats, but no similar practice prevails in the south-eastern parts of peninsular India. Nevertheless as mentioned in the text living snakes are worshipped. A hootta or deserted ant-hill, popularly regarded as the shrine of the god, is very often in reality the residence of a snake. No Hindoo will kill a Naga or cobra willingly. Should any one be killed within the precincts of a village by Mahomedans or others, a piece of copper money is put into its mouth, and the body is burned with offerings to avert the evil. Hindoos hold that it is most fortunate to witness snakes in congress and they believe that if they can throw a cloth at the pair to touch them with it, the cloth becomes a representative form of Lutchmee of, the highest virtue, and is taken home to their houses and preserved as such. Naga is a common name both for males and females among all classes of Hindoos, from Brahmins downwards to the lowest classes of Shoodras and Mlechas. Nago Row, Nagojee, &c., are common Mahratta names. So are Nagappa, Naugova, &c., among the Canarese and Teloogoo population. Some Brahmins always keep the skin of a Naga in one of their sacred books. Lingayets, who deny the religious supremacy of the Brahmins, are nevertheless snake worshippers, many of them bearing the name Naga, both male and female. (3) *The same with trees and serpents combined.*—With observances paid to serpents are intimately connected those paid to trees. Naga stones, when properly erected, ought to be on a built-up stone platform facing the rising sun; and under the shade of two peepul (ficus religiosa) trees, these being a male and female growing together, and wedded by ceremonies in every respect the same as in the case of human beings. Close by and growing in the same platform are also a neem (margosa) and bilvapattra (a kind of wood-apple), which are supposed to be living witnesses of the marriage. The expense of performing the marriage ceremony is too heavy for ordinary persons, and so there is often found only one peepul and a neem on the platform. The fact of the neem and bilvapattra trees being selected as witnesses proves that the Sheiveite religion is in some manner connected with this form of tree and serpent worship. For the fruit of these trees is the only one which in any way resembles a lingam. And by placing the fruit of either on the leaf of the peepul, which represents the yony, there is given a fair representation of an entire lingam. The custom among Brahmins, still acted up to, that under certain circumstances men must marry plants, is remarkable. If a Brahmin is desirous of taking to himself a third wife, he goes through the marriage ceremony correctly, but abbreviated in details, with a yekke gida (Aristolochia indica). This is looked upon as the third marriage; after the ceremony has been completed the yekke gida is cut down and burnt. The Brahmin is now free, without fear of evil consequences, to marry the woman; and she is called nominally his fourth wife. This custom however owes its origin not alone to tree-worship, but also to the belief that the number three is unlucky. By burning the third wife bad luck is averted. It sometimes happens that an elder brother, not having met a suitable wife, is still unmarried when the younger brother wishes to get married. Before the younger can do so however, the elder goes through the ceremony of marriage with a plantain tree, which is afterwards cut down, and the younger is then free to marry. The privileges of chewing betel-nut, wearing flowers in the hair, using sandalwood paste on the body, and tying up the cloth behind in a particular manner, are confined to married men only. By going through the ceremony of marriage with a plantain tree, the unmarried are entitled to exercise those privileges. (4) *Particulars of actual serpent-worship.*—A snake festival has none of the elements of Brahminism in it. The worshippers bathe, mark their foreheads with red colour, and in small parties, generally families who know each other, go to places where cobras are known to live or to frequent. There are generally sacred stones in such places, to which offerings of flowers, ghee, &c., are made; and the stones are anointed with red colour and ground turmeric, prayers and invocations being made to the local spirit of the place and to the serpents. Small new earthen saucers, filled with milk, are then placed near the stones, or near the snake's hole if there be one. Cobras are fond of milk, and are believed to watch the ceremony, coming out of their holes and drinking the milk, even while the worshippers are near or sitting at a little distance to see if their offering is received. Should the snake appear and drink, it is esteemed a fortunate circumstance for the worshippers. Should the snake not appear, the worshippers after waiting awhile depart, and visit the place next morning, when the result is anxiously examined; if the milk has disappeared, the rite has been accepted, but not in so marked a degree as if the reptile had appeared at once. These ceremonies end with a feast. In some places persons who have made vows roll round the temple serpent-fashion, and if the temple is on a hill will even roll up to it from the foot of the hill. They also take home with them earth from the sacred serpent holes. This earth is believed to cleanse from leprosy if rubbed on the parts affected, and to remove barrenness from women if it be daily put in the mouth. The serpentine body-rolling is called angapradacshinam. There are men in the Madura district who for payment will perform the body-rolling as proxies for persons who have vowed it. These rollings are done very rapidly, with great fury and vociferation. It is perhaps remarkable that the snake festival is held after the season or at the season of casting the skin, and when the snake addressed or worshipped is supposed to have been purified. Snake worship is especially resorted to on behalf of children; and the women and children of a family invariably accompany the male head, not only at the annual festival, but whenever a vow has been made to a serpent deity. The first hair of a child which is shaved off when it has passed teething and other infantine ailments, is frequently dedicated to a serpent. On such occasions the child is taken to the locality of the vow, the usual ceremonies are performed, and with other offerings of flowers, &c., the child's hair is combined. In every case a feast follows, cooked near the spot, and Brahmins who attend receive largess and alms, and relations and friends receive invitations. In the Shacty ceremonies called Poornaubhishaica, which belong to aboriginal customs, the worship of the snake forms a portion, as emblematical of energy and wisdom. No priest is ever in charge of snake-shrines.

country are well-known, from the rude elongated stone set up under trees to the massive cylinders of hewn rock which are found in the enclosure of the ancient pagodas. Any natural formation of earth or rock which approaches the lingam in resemblance is regarded with special veneration, and is called swayambhoo lingam or natural lingam. The lingam is generally represented in mystical conjunction with the yony. In appearance these are pure symbols; in no respect images, as are met with elsewhere. And of all the representations of the deity which India has imagined these are the least materialistic. If the common people worship them it is nevertheless true that the choice of these symbols by themselves to the exclusion of every other image was, on the part of certain founders of sects, a protest against idolatry.

57. The subject of phallic worship introduces the Brahminical religion, which in its Sheivic phase reposes on it. The Brahminical mythology is a system vast and multifarious, but it is founded on the philosophical idea of an all-pervading mind from which the universe derived its existence. To this nature, which is called the Brahm, the Hindoos ascribe the most exalted attributes of power, wisdom, and beneficence. This being however is not represented as the active ruler of the universe, but as fixed in sublime and perpetual repose. He did not even, strictly speaking, create finite natures; but emitted them out of his own substance, into which those that are most perfect will again be absorbed. Thus sprung the Hindoo triad, Shiva, Vishnoo, and Brahma; the supreme objects of worship. Shiva bears the title of the destroyer, and in that character has very numerous worshippers. He is represented in the arts under a form calculated to inspire terror; of gigantic size, naked, riding on a bull, his eyes inflamed, and serpents hanging from his ears like jewels. Wars with the gods and extermination of giants form the leading events of his history. The worship of Shiva prevails mostly among the members of the upper classes of Indian society or the lowest classes of all. In the former case it stands for the philosophic conception of destruction as the necessary precedent of subsequent reproduction. In the latter case it stands merely for the conception of the forces hostile and formidable to man. Shiva is the special god of contemplatory Brahmins, but he is also the god who has furnished grounds for human sacrifices and swinging feasts among the lowest part of the population. Here in Southern India with a population wholly aboriginal and already devoted to a religion of fear, it has found a natural home. The great bulk of those who worship the higher gods in the south of India worship Shiva, or his wife Parvaty, indirectly through numerous deified heroes and heroines assimilated to the tutelar deities already mentioned. Parvaty especially is invoked as another mode of addressing the village Ammen. Shiva himself has no separate image. The outward representation of Shiva is always the lingam, but of the meaning of this the common people know little. It is evident that Sheivic worship has been founded on phallism. In the twelfth century arose in South-western India Basava, the founder of the sect of the Lingayets, who especially worship Shiva in the shape of the lingam. This must always be carried about by its disciples, and is therefore called jangamam or "movable" in contradistinction to the lingam of the Shiva temples which is stauvaram or "stable." The sect are also called Lingadhauries. Also Veera Sheivas or warrior Sheivas. They wear a rosary of toolasy beads. The sect has never gained much popularity. The jangams profess to have kept the most primitive faith. They reverence the Vedas and the teachings of Shuncaracharya. They reject the Bhaugavata and Ramayana, and with them the authority of the Brahmins. They disallow all distinctions of caste. Basava they regard as a personification of Shiva. Brahmins have in some cases joined this sect, when they are called Aradhya Brahmins. They are a peaceable race of Hindoo sectarians. They are still numerous in Western Mysore. Worshippers of Shiva are to be distinguished by the horizontal lines on the forehead, thus ☰, made with cow dung or sandal. Vishnoo is the most active member of the triad. His nine fulfilled incarnations, and his tenth expected one, are prominent epochs in Hindoo mythology. On these occasions he appeared differently as a man, a boar, a lion, or a tortoise; to deliver oracles, to destroy giants, and deliver the earth from the evils that oppressed it. In two of the incarnations he appeared as Rama and as Krishna, names which have almost superseded his own; and under

the last appellation his history has awakened the fancy of the Hindoo poets. Vishnoo the preserver is the popular god in Bengal and throughout the northern districts of this Presidency. Vishnoo's oft-mentioned "three steps" may mean the rising, meridian and setting of the sun; or the past, the present and the future. What the lingam and the yony are for Shiva and Devy, a petrified ammonite, the Shalagram (so called from a spot on the banks of the Gandakee where it is found), and the toolasy, a plant of the Basil species, are for Vishnoo and Lutchmee his wife. These last differ however in that they do not play such a part in the worship of the temples, and that they continue to belong rather to the circle of private devotion. In Southern India, the worshippers of Vishnoo are divided into two sects, called Tengalays and Vadagalays. The Tengalays follow the precepts of Manavaulamaumoony or Ramyajamautry, and the Vadagalays those of Vedantacharry or Vedanta Desicar. Both of these saints were pupils of the same master, Ramaunoojacharya, and neither sect speak disrespectfully of the apostle of the other. Both sects use the same rites, with only minor differences. The Tengalays and Vadagalays, if of the same caste, may also eat together and intermarry. So that the points of difference apparently are not of vital importance. Yet among no other sects are there such frequent and bitter quarrels. Tengalay means "southern veda," and Vadagalay means "northern veda;" and in all probability the existing disputes, if their history could be traced, have reference to the assumption of superiority of ritual on the part of Northern Brahmins, who settled in the south. The Tengalays are most numerous in the southern provinces. The serious matter in dispute between the two sects is in regard to the mode of wearing the trident or sectarian mark. The Vadagalays draw these marks from the hair to the nose between the eyes; while the Tengalays prolong the middle line to the middle of the nose. Cheitanya, a native of Bengal, who died in 1527, introduced the worship of Krishna into Southern India, and his disciples there are called Shataunies or Sanautanas. Like the jangams among Sheiveites, these among Veishnavites reject caste. Worshippers of Vishnoo are to be distinguished by the trident mark on the forehead, thus U or Ψ, made in red and white lines. The sign is also often found on their house doors and elsewhere [30]. Between these two great religions, Sheiva and Veishnava, there are many disputes which

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[30] SKETCH ACCOUNT OF THE SECTARIAN MARKS WORN BY THE HINDOOS OF SOUTHERN INDIA.—*Introduction.*—These are sometimes called caste-marks, as indicating that only those are entitled to them who belong to what are considered Hindoo castes. They vary however with the religion professed, and would be more appropriately called sectarian marks. All religious persons belonging to any Hindoo sect use them, and on the other hand no others do so. They form part of the daily ceremonies which are performed prior to the morning meal, are not put on till those ceremonies are completed, and are generally continued in whole or in part for the rest of the day. They are applied to the face, breast, and arms; chiefly the first of these. (2) *Pariah and hill tribes.*—These are not entitled to wear sectarian marks, but sometimes affect them on occasions of festivity; especially the minor mark of the pottoo in Tamul countries. The Badagahs of the Neilgherries wear them always, thus showing that the tribe is within the Hindoo caste system. (3) *Veishnavas.*—For this purpose, all the Veishnavas employ especially a white earth called Gopichandana, which, to be of the purest description, should be brought from Dwarca, being said to be the soil of a pool at that place, in which the Gopees drowned themselves when they heard of Krishna's death. The common Gopichandana, however, is nothing but a magnesian or calcareous clay. The material of which the naumam is made is called "tiroomun shreechoornam" or "akshatah." The naumam in very large size is marked on sacred buildings; and not infrequently in smaller size on the street-door of ordinary habitations. (4) *The Shree Veishnavas.*—The marks of the Ramaunoojeeyas are two perpendicular white lines, made of Gopichandana drawn from the root of the hair to the commencement of each eye-brow, and a transverse streak connecting them across the root of the nose; while in the centre is a perpendicular streak of red, made specially with a particular preparation of turmeric and lime. They have also patches of Gopichandana, with a central red streak on the breast, and each upper arm. The marks are supposed to represent the Shankh, Chacra, Gadah, and Padma, or Shell, Discus, Club, and Lotus, which Vishnoo bears in his four hands, whilst the central streak is Shree, or Lutchmee. Some have these objects carved on wooden stamps, with which they impress the emblems on their bodies, and others carry their devotion so far as to have the parts cicatrized with heated metallic models of the objects they propose to represent. Besides these marks, they wear a necklace of the wood of the Toolasy, and carry a rosary of the seeds of the same plant, or of the lotus. (5) *The Tengalay and Vadagalay sub-divisions of the Shree Veishnavas.*—The opposition between these in the present day relate more to the external mark of their sect than to differences in fundamental doctrine. The one party contends that the mark should represent both Vishnoo's feet and should extend half-way down the nose, while the other maintains that the mark should only represent one foot of Vishnoo and that the nose should not be painted. The due marking of the idols in their temples is a special subject of contention and sometimes of litigation. The Tengalay frontal mark, which has some resemblance to a trident, is represented thus Ψ. The two outer lines stand for the two soles of Vishnoo's feet, while the line which extends down the nose represents a lotus throne on which the feet rest. On the other hand the Vadagalay mark U stands for only one of Vishnoo's feet. The Vadagalays contend that since the Ganges sprang from the sole of Vishnoo's right foot, his right foot should be held in special veneration. Both parties agree in employing a central mark to symbolize Vishnoo's wife, Lutchmee. (6) *The Vallabhacharry Veishnavas.*—The mark on the forehead consists with these of two red perpendicular lines meeting in a semicircle at the root of the nose, and having a round spot of red between them. The Bhactas have the same marks as the Shree Veishnavas on the breasts and arms, and some also make the central spot on the forehead with a black earth, called Shyaumabandy, or any black metallic substance. The necklace and rosary are made of the stalk of the Toolasy. This sect is scarce in Southern India. (7) *The Madhwa Veishnavas.*—The marks common to them, and the lay votaries of the order, are the impress of the symbols of Vishnoo upon their shoulders and breasts, stamped with a hot iron, and the frontal mark, which consists of two perpendicular lines, made with Gopichandana and joined at the root of the nose like that of the Shree Veishnavas; but instead of a red line down the centre, the Madhwacharries

sometimes end in blows. In former days, such occurrences were more frequent than they are now. The disputes consist in the question which god is the greater and which is the original one. The most complete examples of both creeds are now to be looked for in Southern India, for the north was always more exposed to conquerors. It was the south which produced the great religious revivalists of both creeds; Coomaurila, Shuncara, Madhwa, Ramaunooja and Vallabha. The Sheiveites are in the minority in the northern districts. In the Ganjam district they are as one to ten of the Veishnavites; in Vizagapatam as one to four; in the Godavery district as one to three and a fraction. When the Kistna district is reached, the Sheiveites approach in numbers to the Veishnavites. In Nellore, Cuddapah, Bellary, Kurnool, Chingleput, North Arcot, and South Arcot the proportions are nearly equal. In the districts to the south, the Sheiveites constitute by far the larger portion of the Hindoo population. In Tanjore they are nearly seven to one of the Veishnavites; in Trichinopoly and Coimbatore four to one; in Tinnevelly and Madura more than five to one. On the western coast they out-number the Veishnavites in the proportion of two to one in Canara and sixty-seven to one in Malabar. Brahma, though the highest in dignity, and manifesting even the qualities of the source from which he emanates, is comparatively little regarded, and has no temples raised and no national worship paid to him. It is doubtful whether he was ever worshipped, though the Brahma Poorana speaks of it being so at Pooshcara near Ajmeer. In no other part of India at any rate, amidst the millions abounding in the country, is there any trace of his worship. Among inferior deities the first place is held by Indra, bearing the title of king of heaven. This high place is maintained only by perpetual contests with Ashooras and Racshasas. He is even liable to be ejected by Brahmins skilled in magic. Other objects of worship are Cartigay, god of war; Soorya, the sun; Pavana, the god of the winds; Varoona, god of the waters; Yama, the king who judges the dead. These deities however are little regarded by the people. The rivers are accounted divinities. Sanctity attaches to the Godavery and its affluents, the Cauvery, the Kistna, and the Toongabudra; the latter being called the Gangah of the south. Like the Ganges and the Jumna, these rivers have their holy places, to which there flock troops of devotees. The worship of animals is also prevalent. The cow above all is held in deep and general reverence. The bull is the vahan or vehicle of Shiva and is called Nundy. In all temples of Shiva may be seen the image of this animal made of black stone kneeling before the lingam and yony, the symbols of Shiva and Parvaty. And in pictures Shiva is invariably represented riding on a bull. A bull both in the Sheiva and Veishnava temples carries the kettle-drums which are sounded for worship three times daily. It is one of the most meritorious acts to dedicate a bull to Shiva. What the bulls are to Shiva the monkeys are to Vishnoo. Legions of these animals infest the neighbourhood of his temples, where they are maintained and revered as the representatives of Hanooman, the monkey-god once associated with Rama. The exploits of the monkey are largely celebrated in the sacred books. Several animals are appropriated as vahans or vehicles to other members of the pantheon

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make a straight black line with the charcoal from incense offered to Narayana, terminating in a round mark made with turmeric. (8) *The Sanautany Veishnavas.*—The Veishnavas of this sect are distinguished by two white perpendicular streaks of sandal, or Gopichandana, down the forehead, uniting at the root of the nose and continuing to near the tip; by the name of Raudhah Krishna stamped on the temples, breast and arms; and by a close necklace of Toolasy stalk of three strings, with a rosary of one hundred and eight or sometimes even of a thousand beads made of the stem of the Toolasy. (9) *Veishnava women.*—These wear a perpendicular red mark, and a horizontal white mark between the eye-brows. (10) *Sheiveites.*—The full mark of a Sheiveite is three horizontal lines on the forehead, thus ≡. The common name for these is keetnaumam. In the early morning these consist of Vibhooty or sacred ashes. The ashes should properly be taken from the fire of an agni hotra Brahmin, but may also be the ashes of burnt cow-dung from an oblation offered to the deity. The material or Vibhooty, and the efficacy of the mark the Tripoondra, are thus described in the Caushikhanda:—"The ashes of fire made with burnt cow-dung are the material fittest for the Tripoondra. Whoever "marks the Tripoondra with ashes, agreeably to rule, is purified from sins of the first and second degree; who makes it "on his forehead without the mantras, being ignorant of its virtue, will be purified from every simple sin." The mode of making it is thus laid down:—"Beginning between the eye-brows, and carrying it to their extremity, the mark "made with the thumb reverted between the middle and third fingers is called the Tripoondra." The preparation of the ashes is attended with ceremonies, and the use of mantras. Aundies or Sheiva ascetics smear all visible parts of the body with the ashes. After ablution, in the case of all who are not ascetics, the Vibhooty is replaced with sandal-paste or shandanam. Strict Smarta religionists add a white circular spot on the central line of the keetnaumam. This indeed often takes the place of the three lines in the process of applying sandal, and is thus worn during the day. The circular spot is called pottoo in the Dravidian languages. On occasions of mourning the pottoo is either rubbed off or made of white. Most of the Numboory Brahmins of the West Coast are Shiva worshippers. (11) *Sheiva women.*—Sheiva women wear a crimson pottoo made of turmeric and lime-juice. (12) *Nayars.*—Though the Nayars of Malabar are Veishnavites, they retain the old Shiva mark on the forehead.

besides Shiva. The swan and eagle belong respectively to Brahma and Vishnoo, and are severally named Hansa and Garooda. Ganesh, eldest son of Mahadeva or Shiva and Parvaty, the elephant-headed god of prudence and policy, rides a rat; Cartigay, their second son rides a peacock; Indra rides the elephant, Eirauvatham, the symbol of might; Varoona, the god of the waters, rides a fish; Cauma Deva, the god of love, rides a parrot; Agny, the god of fire, rides a ram. The Hindoo goddesses are uniformly represented as the subordinate powers of their respective husbands. Lutchmee is the wife of Vishnoo, Bhawany of Shiva or Mahadeva, and Saraswatee of Brahma. Here it should be mentioned that the followers of the Tantras or worshippers of Shacty, the female energy, are to be found in Southern as in Northern India; and are divided into Dacshinacharries or right-hand worshippers and Vaumacharries or left-hand worshippers. The former practise magical rites, and the latter indulge in orgies of extreme description. Some of the followers of the Tantras are also called Canchoolyas. These sectarians may belong outwardly to either the Sheiva or the Veishnava religion. The Hindoo religion has a reverence for the impressions of feet. At the summit of Adam's Peak in Ceylon is a natural hollow artificially enlarged, which is said by the Ceylonese to be the impression of the foot of Booddha. It is called however by the Hindoos of Southern India, Shreepada, meaning the divine footstep; Vishnoo having alighted on that spot in his avatar of Rama. Mahomedans have also claimed this footmark as a religious relic. The following is a list of trees and plants in Southern India sacred to either Shiva or Vishnoo:—Cratæva religiosa, for Shiva; Cratæva nurvala, for Shiva; Jonesia asoca, for Shiva; Cæsalpinia pulcherrima, for Shiva; Jasminum undulatum, for Shiva and Vishnoo; Guettardia speciosa, for Shiva and Vishnoo; Calophyllum inophyllum, for Shiva and Vishnoo; Oroganum marjorana, for Shiva and Vishnoo; Ixora bandhuca, for Shiva and Vishnoo; Artemisia anstriaca, for Shiva and Vishnoo; Nerium odorum, for Shiva and Vishnoo; Chrysanthemum indicum, for Shiva and Vishnoo. The ideas of a future state present a strong and peculiar character under the Hindoo mythology. The human mind being considered an emanation from the Brahm, or supreme mind, the Hindoos find a ground for its pre-existence in the doctrine of the metempsychosis, or transmigration of souls, which is diffused over the whole East. Under this system, the souls of all animals are held to be those of men thus degraded in punishment of their sins, but capable after many ages of regaining their pristine condition. The Hindoo creeds afford for the reward of the good a variety of heavens. The places of future punishment are in like manner multiplied and filled with various species of torture. The deeds according to which these rewards or punishments are awarded compose the moral code of the Hindoo. The doctrines of the more ancient religion of the Hindoos are contained in the Vedas or four sacred books, each composed of two parts; one containing forms of worship, the other containing moral and religious instruction. These Vedas are of the highest antiquity, indeed of an age quite unknown. Their primary doctrine teaches theism, or the worship of a self-existent supreme being, to whom all are subject. "There is in truth," they say, "but one deity, the supreme spirit, the lord of the universe, whose work is the universe." The Pooranas, the other best known sacred books of the Hindoos, are compositions of later date, and are the exponents of modern Brahminism. The Pooranas are eighteen in number, and were written in support of the doctrines of particular sects and the supremacy of the priesthood. They are for the most part legendary in their character. The pure theism of the ancient Hindoo faith, as defined in the Vedas, has become developed into an elaborate polytheistic system. The ancient Darshanas give the philosophy of the Hindoos, than which none is more subtle. Brahmins alone prosecute this, but the people are not without their philosophic intelligence. Brahmins are of three classes according to the distinctions made by a combination of creed and philosophy. When called Smartas they worship Shiva and prosecute the Adweita philosophy; these have followed Shuncaracharya. When called Madhwas they worship Vishnoo, and prosecute the Dweita philosophy; these have followed Madwacharya. When called Shree Veishnavas they worship Vishnoo and prosecute the Vishishtadweita philosophy; these have followed Ramaunoojacharya. Of the three philosophies the old or Adweita is that which prevails most in Southern India. It teaches that the deity is the one great essence, filling all space and time. It is separated by little from pantheism. While pantheism says

"every thing is God" the exact maxim in the Adweita is "every thing is of God." In the Adweita system worship is held to begin with an access of the "state of knowing." The conversion is not accompanied by, or dependent upon, any initiatory rite. The enlightenment comes from within. The whole of the ethical and much of the dogmatic part of the Adweita system coincides with the tenour of the ancient Dravidian literature written long before Sanscrit teachings; and Shuncaracharya did not do more than dispose in order the instinctive beliefs of higher Dravidian minds. The causes which have made the Adweita philosophy congenial to the population of this country are the same that have predisposed them to adopt Christianity in much greater numbers than the inhabitants of any other part of India [31 & 32].

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[31] SKETCH ACCOUNT OF THE PRINCIPAL EXISTING HINDOO SECTS IN SOUTHERN INDIA.—*Shiva worshippers*—This sect prevails among the people who speak the Tamul, Canarese, and Malayalam languages; that is to say through the well populated countries attached to the ancient Hindoo kingdoms of Chera, Chola, and Pandya. A casual observer may convince himself of the prevalence of the Sheiveite faith by comparing with those who wear the Veishnava sign, the number of those whose foreheads are marked with the triple horizontal line of ashes. The most imposing fanes in Southern India are devoted to this religion. Its tenets, ethics and Pooranic fables have supplied the Tamul language with the greater part of its literature. The feeling of the Sheiveites as a body is decidedly polemic with regard to other sects. Their religious works are filled with stories which redound to the glory of Shiva, whilst they impute a vast inferiority to other deities. The Smarta Brahmins derive their title from the word Smarta 'pertaining to law,' and deem it applicable to themselves since they strictly adhere to the rules of the Veda, as selected and expounded by the great Shuncaracharya. Their theology is pantheistic; Shiva is all things and everywhere, and Brahma and Vishnoo are manifestations of him. The community is very large; to say that a person is a Smarta Brahmin is colloquially the same as saying that he is a Shiva Brahmin. Their education, dignity, and not unfrequently their wealth, give them great influence over the adherents of the Shiva faith and contribute to sustain the strength of that faith. The ascetic adherents of the Shiva system are termed Yogies. The Shiva system holds out to its votaries a four-fold bliss in a future state, termed Saulokya, Saumeepya, Sauroopya, and Sauyoojya; or the presence of God, propinquity to God, similitude to God, and absorption into God. These states of bliss are attached to four kinds of devotion, to which they respectively correspond. These are religious services, ceremonies, asceticism, and the exercise or possession of spiritual wisdom. The two last methods are said to be impossible to men who are so unfortunate as to live in the present Kaliyoog or iron age. Religious service and ceremony may be presented to the deity by a worshipper in his own home. A temple devoted to the worship of Shiva does not differ in its architectural character from one consecrated to Vishnoo. An outer wall, generally a parallelogram, incloses a court; in which very numerous sacred buildings may be erected. The principal edifice is the shrine, which is approached through a vestibule. There is no image of Shiva, who is worshipped only through the lingam or phallic emblem. Lingam worship is among the most ancient objects of homage adopted in India independently of the ritual of the Vedas. How far the worship of the Lingam is authorized by the Vedas is doubtful, but it is the main purport of several of the Pooranas. There can be no doubt of its universality at the period of the Mahomedan invasion of India. The idol destroyed by Mahmood of Ghuznee at Somnauth in Goozerat was nothing more than a lingam, being a block of stone four or five cubits long and of proportionate thickness. It was one of the twelve great lingams then set up in various parts of India, several of which, besides Somnaut, were destroyed by the early Mahomedan conquerors. The twelve lingams are particularised in the Kedauracalpa of the Nundy Oopapoorana, where Shiva is made to say: "I am omnipresent, but I am especially in twelve forms and places." These he enumerates and they are as follow:—"a" Somnaut, in Sowrashtra or Surat, in its most extensive sense, including part of Goozerat, where indeed Pattana Somnaut, or the city of Somnaut, is still situated. "b" Mullicarjoona, or Srisheilam. "c" Mahacaula in Oojjein. This deity of stone was carried to Delhi, and broken there upon the capture of Oojjein by Altmish, in A.D. 1231. According to the Tabkauty Acbaree the shrine was then three hundred years old. "d" Omcaura. This is said to have been in Oojjein; but it is probably the shrine of Mahadeva at Omcaura Mandhattah on the Nerbudda. "e" Amareshwara. This is also placed in Oojjein. "f" Veidyanauta, at Deogarh in Bengal; the temple is still existent, and is a celebrated place of pilgrimage. "g" Ramesha, at Setoobandha, the island of Rameswaram, between Ceylon and the continent. This lingam is stated to have been set up by Rama. The temple is still in repair, and is one of the most magnificent in India. The gateway is one hundred feet high. "h" Bheemashancara, in the Deccan country, which is probably the same with Bheemeshwara, a lingam worshipped at Drauksharamam in the Rajahmundry district, and there venerated as one of the principal twelve. "i" Vishweshwara, at Benares. "j" Triyambaca, on the banks of the Goomty; whether the temple still exists is not known. "k" Gowtameesha is another of the twelve, whose original site and present fate are uncertain. "l" Kedauresha, or Kedarnauta, in the Himalaya; this deity is represented by a shapeless mass of rock. Most, if not all of these lingams are named in works of which the date cannot be much later than the eighth or ninth century, and it is therefore to be inferred with as much certainty as anything short of positive testimony can afford that the worship of Shiva, under this type, prevailed throughout India at least as early as the fifth or sixth century of the Christian era. Considered as one great branch of the universal public worship, its prevalence no doubt dates much earlier; but the particular modifications under which the several types received their local designations and became entitled to special reverence are not in every case of remote antiquity. The principal lingam of a Shiva temple should be accompanied by images of Oomah or Parvaty; of their offspring, Ganesh, Soobramanya (Cartikeya) and Veerabhadra; of Brahma and Vishnoo; of the Shacties of these; with many others. The worship paid in such a shrine is of the most formal description. Reverence is paid to Ganesh; permission to enter is requested from Nundy, the bull; and the worshipper prostrates himself before the principal lingam or contents himself with lifting his clasped hands to his forehead. He presents his offering, if he has one, through the attendant Brahmin, does obeisance again, makes a gesture to any other of the deities whose favour he may wish to propitiate, walks round the temple, and departs. The bull Nundy is the porter of Keilausa, the abode of Shiva. Images of him occupy a similar position in Shiva temples. He is placed within the gateway, faces the shrine, and is always represented couchant. Smaller bulls are to be found in every part of the temple, and the presence of these is the surest sign of a Shiva temple. The bull itself is worshipped. Among the lingadhauries of Mysore this is in fact the most popular object of worship, under the name of Basava, who was an incarnation of Nundy, in the eleventh century. The Mysorean origin of the Naickar rulers of Tanjore will account for their general introduction of it in the south. It is not very popular amongst the Tamulians themselves. (2) *Jangams.*—One of the forms in which the lingam worship appears is that of the Lingayets, Lingavants, Lingadhauries, or Jangams, the essential characteristic of whom is the practice of wearing the emblem on some part of the dress or person. The sign is of a small size, made of copper or silver, and is commonly worn suspended in a case round the neck, or sometimes tied in the turban. In common with the Sheivas generally the Jangams smear their foreheads with Vibhooty or ashes, and wear necklaces, and carry rosaries, made of the Roodraucsha seed. The clerical members of the sect usually stain their garments with red ochre. In the south of India the Lingayets are very numerous, and the officiating priests of the Sheiva shrines are commonly of this sect, when they bear the designations of Aradhya and Pandauram. The sect is also there known by the name of Veera Sheiva. The Basava Poorana in Canarese is the chief work on the religion of the sect. There are many other

58. This is the religion the details of which have been imposed on the Dravidians by the Brahmins, or have been derived by the Dravidians from their own traditions. For their celebration Southern India is covered with temples [33]. The

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Canarese works, such as the Basava Poorana, Channa Basava Poorana, Prabhoolingaleelah, Sharanaleelaumrita, Viractaracauvya, and others, containing legends of a vast number of Jangama saints and teachers. There are also several works of the same nature in Teloogoo; as the Basaveshwara Poorana, Punditaradhyacharitram, and others. (3) *Ramaunoojeeyas or Shree Veishnavas.*—The establishments of the Ramaunoojeeyas are specially numerous in the Deccan, and the same country comprehends the site of the Guddee, the pillow or seat of the primitive teacher; his spiritual throne in fact, to which his disciples are successively elevated. This circumstance gives a superiority to the Acharyas of the Dacshina or south, over those of the Oottara or north, into which they are at present divided as will be hereafter noticed. The Brahminical heads of the sect are called Iyengars. The worship of the followers of Ramaunooja is addressed to Vishnoo and to Lutchmee, and their respective incarnations, either singly or conjointly; and the Shree Veishnavas, by which general name the sect is known, consist of corresponding sub-divisions, as Narayana, or Lutchmee, or Lutchmee Narayana, or Rama, or Seeta, or Seeta Rama, or Krishna, or Rookminee, or any other modifications of Vishnoo and his consort. The most striking peculiarities in the practices of this sect are the individual preparation and scrupulous privacy of their meals. They must not eat in cotton garments, but having bathed must put on woollen or silk. The teachers allow their select pupils to assist them, but in general all the Ramaunoojeeyas cook for themselves, and should the meal during this process or whilst they are eating attract the looks of a stranger, the operation is stopped. The chief ceremony of initiation in all Hindoo sects is the communication by the teacher to the disciple of the mantra, which generally consists of the name of some deity, or a short address to him; it is communicated in a whisper, and never lightly made known by the adept to profane ears. The mantra of the Ramaunooja sect is said to be the six syllable mantra:—Om Ramauya namah; or Om, salutation to Rama. Another distinction among the sects, but merely of a civil character, is the term or terms with which the religious members salute each other when they meet, or in which they are addressed by the lay members. This amongst the Ramaunoojeeyas is the phrase, I am your slave; accompanied with a slight inclination of the head, and the application of the joined hands to the forehead. To the Acharyas, or supreme teachers of this sect, the rest perform the Ashtaunga Dandawat or prostration of the body with the application to the ground of eight parts, the forehead, breast, hands, knees, and insteps of the feet. The principal authorities of this sect are the comments of the founder on the Sootras of Vyausa and other Veidic works. These are written in Sanscrit, and are the Shree Bhashya, the Geetabhashya, the Vedaurtasangraha, Vedantapradeepa, and Vedantasaura. Besides these, the works of Vencata Acharya are of great repute amongst them; as the Stotrabhashya and Shatadooshinee, and others. The Chundamaurootaveidica and Trimshatadhyauna are also works of authority, as is the Pauncharautra of Naurada. Of the Pooranas they acknowledge only six as authorities; the Vishnoo, Nauradeeya, Garooda, Padma, Varauha and the Bhagavata. The other twelve are regarded as Taumasah, or originating in the principles of darkness and passion. Besides these, the Ramaunoojas have a variety of popular works in the dialects of the south, one of which, the Gooroopaurambaray, contains an account of the life of Ramaunooja. The chief religious tenet of the Ramaunoojas is the assertion that Vishnoo is Brahma; and that he was before all worlds, and was the cause and the creator of all. Although they maintain that Vishnoo and the universe are one, yet, in opposition to the Vedanta doctrines, they deny that the deity is void of form or quality, and regard him as endowed with all good qualities and with a two-fold form; the supreme spirit, Paramautman, or cause, and the gross one, the effect, the universe or matter. The doctrine is hence called the Vishishtadweita, or doctrine of unity with attributes. In these assertions they are followed by most of the Veishnava sects. Creation originated in the wish of Vishnoo, who was alone without a second, to multiply himself. He said, I will become many; and he was individually embodied as visible and ethereal light. After that, as a ball of clay may be moulded into various forms, so the grosser substance of the deity became manifest in the elements and their combinations. The forms into which the divine matter is thus divided are pervaded by a portion of the same vitality which belongs to the great cause of all, but which is distinct from his spiritual or ethereal essence. Here therefore the Ramaunoojas again oppose the Vedanticas; who identify the Paramautman and Jeevautman, or ethereal and vital spirit. This vitality, though endlessly diffusible, is imperishable and eternal; and the matter of the universe, as being the same in substance with the supreme being, is alike without beginning or end. Poorooshottama, or Narayana, after having created man and animals, through the instrumentality of those subordinate agents whom he willed into existence for that purpose, still retained the supreme authority of the universe. So that the Ramaunoojas assert three predicates of the universe, comprehending the deity. It consists of Chit or spirit, Achit or matter, Eeshwara or god; or the enjoyer, the thing enjoyed, and the ruler and controller of both. Besides his primary and secondary form as the creator and creation, the deity has assumed at different times particular forms and appearances for the benefit of his creatures. He is, or has been visibly present amongst men, in five modifications. In his Archah, objects of worship, as images, &c. In the Vibhavas or avatars, as the fish, the boar, &c. In certain forms called Vyoohas, of which four are enumerated; Vasoödeva, or Krishna, Balarama, Pradyoomna, and Anirooddha. Fourthly, in the soocshma form, which when perfect comprises six qualities:—Virajas, absence of human passion; Vimrityoo, immortality; Vishoca, exemption from care or pain; Vijighatsah, absence of natural wants; Satyacauma and Satyasancalpa, the love and practice of truth. Sixthly, as the Antarautmah or Antaryaumee, the human soul, or individualised spirit. All these are to be worshipped seriatim as the ministrant ascends in the scale of perfection, and adoration therefore is five-fold:—Abhigamana, cleaning and purifying the temples, images, &c.; Oopadauna, providing flowers and perfumes for religious rites; Ijya, the presentation of such offerings, blood offerings being uniformly prohibited, it may be observed, by all the Veishnavas; Swadhyauya, counting the rosary and repeating the names of the divinity, or any of his forms; and Yoga, the effort to unite with the deity. The reward of these acts is elevation to the seat of Vishnoo and enjoyment of like state with his own, interpreted to be perpetual residence in Veicoonta, or Vishnoo's heaven, in a condition of pure ecstasy and eternal rapture. The Ramaunoojas are decidedly hostile to the Sheiva sect, and are not on very friendly terms with the modern votaries of Krishna, although they recognize that deity as an incarnation of Vishnoo. Some of the oldest monuments of the Veishnava faith in South India may be found in the ruins of Mauvellipore or the Seven Pagodas, to which frequent reference will be found in these pages. Though symbols of Shiva and sculptured representations of Parvaty are found in the multitude of figures represented there in the various reliefs, yet the chief subjects are selected from the legends attached to the Veishnava faith. The dwarf incarnation of Vishnoo may be particularised. The most celebrated shrine devoted to Vishnoo is that of Shreerungam, erected upon an island formed by the waters of the Coleroon and Cauvery. The deity is there worshipped under the name of Shreerunganautha, or "Lord of the holy isle." The form presented to the eyes of his worshippers is said to be the same as that which he assumes when he reposes upon Shesha in Veicoonta. Vishnoo is called also Permaul in the south. Besides the temples appropriated to Vishnoo and his consort and their several forms, and those which are celebrated as objects of pilgrimage, as Ramnaud and Runganauta, images of metal or stone are usually set up in the houses of the private members of this sect, which are daily worshipped, and the temples and dwellings are all decorated with the Shalagram stone and Toolasy plant. The mendicant followers of Vishnoo are termed Byraghies. They profess to have obtained perfect moral restraint in speech, body and mind. (4) *The northern and southern branches of the Shree Veishnavas.*—In this Presidency the Veishnavas are divided into two great parties, known as the Vadagalay and Tengalay, or the northern learning and the southern learning. This division of the Veishnavas was occasioned mainly through Vedanta Desicar, a Brahmin of Conjeeveram, who lived about six hundred years ago, and laid claim to a divine commission to reform the customs of Southern Brahmins, and to restore the old northern rules and traditions. While both the sects acknowledge the Sanscrit books to be authoritative, the Vadagalay uses them to a greater extent than the Tengalay. The former also recognizes and acknowledges the female energy as well as the male; though not in the grosser form in which it is worshipped among the Sheivas, but as being the feminine aspect of deity, and representing the care of Providence. The Tengalay excludes the agency of the female energy in general, but allows it co-operation in the final salvation

temples of the Tamulians are not only by far the largest temples in India but are besides the largest temples in the world. Every temple must have its image, made of gold or silver; or in default of these of iron, brass, lead, or tin, sometimes even only of clay and pottery. The worship of all idols is of one kind. They are

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of a human soul. The most curious difference between the two schools is that relating to human salvation itself, and is a reproduction of the European controversy between Calvinists and Armenians. For the adherents of the Vadagalay strongly insist on the concomitancy of the human will for securing salvation, whereas those of the Tengalay maintain the irresistibility of divine grace in human salvation. The arguments from analogy used by the two parties respectively are homely. The former adopt what is called the monkey-argument, the Marcata nyauya; for the young monkey holds on to or grasps its mother to be conveyed to safety, and represents the hold of the soul on God. The latter use the cat-argument, the Marjaula nyauya, which is expressive of the hold of God on the soul; for the kitten is helpless until the mother-cat seizes it whether it wishes or not and secures it from danger. The Tengalay omit to ring the bell when worshipping their idols, salute each other and their gods only once, make use of Tamul verses in room of Sanscrit mantras and prayers, modify the Shraddha ceremony materially, and do not shave their widows. While both sects wear a representation of Vishnoo's trident, composed of red or yellow for the middle line or prong of the trident, and of white earth called naumam for those on each side, the followers of the Vadagalay draw the middle line only down to the bridge of the nose thus (U), but those of the Tengalay draw it over the bridge a little way down the nose itself, thus ψ. Each party maintain that their mode of making the mark is the right one. These matters are treated of in a previous note. Shreemat Tennacharyar Prabhauvam is a pamphlet composed by Appow Moodelliar, on the Tengalay side, giving an account of a discussion between the two sects. Tennacharya Prabhauva Kandanam is a reply to it, by Veeraraghavacharry on the part of the Vadagalay sect. Shatsampradauya Deepicay, by the writer of the first-named treatise, is a rejoinder to the work last named. (5) *Worshippers of Krishna.*—Though the temples specifically dedicated to Vishnoo are very numerous, yet in many respects his popularity has been eclipsed by that of Krishna, the boy divinity, and his own incarnation. The sect which exclusively worships Krishna are called Shataunies or Sanautanas, and these also have temples dedicated to Krishna by name. In such edifices all the incidents of an infant's life are represented and deified. Every temple devoted to Krishna has its great annual festival. He is then carried to large halls or mantapams, where butter and curds are presented to him. He visits groves of tamarind or palmyra trees where the Gopees bear him company and have their representatives in the temple dancing girls. He sails over the sacred tank on a raft and is carried on a lofty car amidst the acclamations of the people. Women and children crowd in large numbers to these festivities. (6) *Brahma Sampradayees, or Madhwacharries.*—The marks which indicate these are the impress of the symbols of Vishnoo upon their shoulders and breasts, stamped with a hot iron, and the frontal mark, which consists of two perpendicular lines made with Gopichandana, and joined at the root of the nose like that of the Shree Veishnavas; but instead of a red line down the centre, the Madhwacharries make a straight black line with the charcoal from incense offered to Narayana, terminating in a round mark made with turmeric. The essential dogma of this sect, like that of the Veishnavas in general, is the identification of Vishnoo with the supreme spirit, as the pre-existent cause of the universe, from whose substance the world was made. This primeval Vishnoo they also affirm to be endowed with real attributes, most excellent, although indefinable and independent. As there is one independent however, there is also one dependent; and this doctrine is the characteristic dogma of the sect, distinguishing its professors from the followers of Ramaunooja as well as Shuncara, or those who maintain the qualified or absolute unity of the deity. The creed of the Madhwas is Dweita, or duality. It is not however that they discriminate between the principles of good and evil; or even the difference between spirit and matter, which is the duality known to other sects of the Hindoos. Their distinction is of a more subtle character, and separates the jeevautman from the paramautman, or the principle of life from the supreme being. Life, they say, is one and eternal, dependent upon the supreme, and indissolubly connected with, but not the same with him. A particular consequence of this doctrine is the denial of Mocsha, in its more generally received sense, or that of absorption into the universal spirit, and loss of independent existence after death. The yoga of the Sheivas, and Sauyoojya of the Veishnavas, they hold to be impracticable. The supreme being resides in Veicoonta, invested with ineffable splendour, and with garb, ornaments, and perfume of celestial origin; being the husband also of Lutchmee or glory, Bhoomy the earth, and Neely understood to mean Doorga or personified matter. In his primary form no known qualities can be predicated of him, but when he pleases to associate with Mayah, which is properly his desire or wish, the three attributes of purity, passion, or ignorance, or the Sattwa, Rajas, and Tamas goonahs, are manifested as Vishnoo, Brahma, and Shiva, for the creation, protection, and destruction of the world. These deities again perform their respective functions through their union with the same delusive principle to which they owed their individual manifestation. This account may be styled, allegorical, though the want of some tangible objects of worship has converted the shadows into realities, and the allegory, when adapted to the apprehensions of ordinary intellect, has been converted into the legend known in northern India, of the supreme begetting the Hindoo triad by Mayah, and her subsequent union with her sons. Other legends are current amongst the Madhwas, founded on this view of the creation, in which Brahma and Shiva and other divinities are described as springing from his mind, his forehead, his sides, and other parts of his body. They also receive the legends of the Veishnava pooranas of the birth of Brahma from the lotus of the navel of Vishnoo, and of Roodra from the tears shed by Brahma on being unable to comprehend the mystery of creation. The modes in which devotion to Vishnoo is to be expressed are declared to be three, ancana, naumacarana, and bhajana, or marking the body with his symbols, giving his names to children, and other objects of interest, and the practice of virtue in word, act, and thought. Truth, good council, mild speaking, and study belong to the first; liberality, kindness, and protection to the second; and clemency, freedom from envy, and faith to the last. These ten duties form the moral code of the Madhwas. The usual rites of worship, as practised by the Veishnavas of this sect, are observed, and the same festivals. The daily ceremonies at Oodipy are of nine descriptions:—"a" Malavisarjana, cleaning the temple; "b" Oopastauna, awaking Krishna; "c" Punchaumrita, bathing him with milk, &c.; "d" Oodvartana, cleaning his image; "e" Teerta Poojah, bathing him with holy water; "f" Alancaura, putting on his ornaments; "g" Auvritta, addressing prayers and hymns to him; "h" Mahapoojah, presenting fruits, perfumes, &c., with music and singing; "i" Rautry Poojah, nocturnal worship, waving lamps before the image, with prayers, offerings, and music. In the poojah however there is one peculiarity which merits notice as indicative of a leaning towards the Sheiva sects; namely that the images of Shiva, Doorga, and Ganesh are placed on the same shrine with the form of Vishnoo, and partake in the adoration offered to his idol. Rites are conducive to final happiness, only as they indicate a desire to secure the favor of Vishnoo. The knowledge of his supremacy is essential to the zeal with which his approbation may be sought, but they consider it unnecessary to attempt an identification with him by abstract meditation, as that is unattainable. Those who have acquired the regard of Vishnoo are thereby exempted from future birth and enjoy felicity in Veicoonta under four conditions, as Sauroopya, similarity of form; Saulokya, visible presence; Sannidhya, proximity; and Sarshty, equal power. The superiors, or gooroos, of the Madhwa sect, are Brahmins and sanyausies, or profess cœnobitic observances. The disciples, who are domesticated in the several matts or monasteries, profess also perpetual celibacy. The lay votaries of these teachers are members of every class of society, except the lowest; and each Gooroo has a number of families hereditarily attached to him, whose spiritual guidance he may sell or mortgage to a Brahmin of any sect. Besides the writings of the founder, the following works are considered as forming the shastra, or scriptural authority, of this sect; the four vedas, the Mahabharat, the Pauncharautra, and the genuine or original Ramayana. It seems not improbable that the founder of the Madhwa sect was originally a Sheiva priest, and, although he became a convert to the Veishnava faith, he encouraged an attempt to form a kind of compromise or alliance between the Sheivas and Veishnavas. Madhwa was first initiated into the faith of Shiva at Ananteshwara, the shrine of a lingam, and one of his names, Anantateerta, indicates his belonging to the class of dashnaumy gosains, who were

anointed with oil, and sometimes milk is poured over them. With each motion of the hand, every one of which is prescribed, prayers are uttered consisting of praises and requests. The doctrine is, that after certain prayers and ceremonies the god takes possession of the idol, which till then had been nothing more than stone or

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instituted by Shuncaracharya. One of his first acts was to establish a shalagram, the type of Vishnoo, at the shrine of Soobramanya, the warrior son of Shiva; and, as observed above, the images of Shiva are allowed to partake in the Madhwa temples of the worship offered to Vishnoo. The votaries of the Madhwa gooroos and of the Shuncaracharya gosains offer the namascaura, or reverential obeisance to their teachers mutually, and the Shringairy Mahant visits Oodipy, to perform his adorations at the shrine of Krishna. It is evident therefore that there is an affinity between these orders, which does not exist between the Sheivas and Veishnavas generally, who are regarded by the Madhwas, even without excepting the Ramaunoojas, as Paushandees or heretics, whether they profess the adoration of Vishnoo or of Shiva. The chief station of this sect is, as mentioned in the history above, at Oodipy. There agreeably to the code of the founder, each sanyausy, in turn, officiates as superior for two years, or two years and a half. The whole expense of the establishments devolves upon the superior for the time being, and, as it is the object of each to outvie his predecessor, the charges are much heavier than the receipts of the institution; and, in order to provide for these, the sanyausies employ the intervals of their temporary charge in travelling about the country, and levying contribution on their lay votaries, the amount of which is frequently very large, and is appropriated for the greater part to defray the costs of the occasional pontificate. There are eight other Mutts in Tooloova below the ghauts; at Canoor, Pejanwar, Admara, Palamar, Krishnapoora, Shiroor, Sooda, and Poottigey. Madwacharya authorized the foundation of others above the ghauts under Pudmanaubha Teerta, to whom he gave images of Rama and the Vyausa Shalagram, with instructions to disseminate his doctrines and collect money for the use of the shrine at Oodipy. There are four such establishments under the descendants of this teacher above the ghauts, and the superiors visit Oodipy from time to time but never officiate there as pontiffs. (7) *Shacty worshippers.*—The power or energy of the divine nature in action is personified and worshipped, and is then termed Shacty. Saraswatee, Lutchmee and Parvaty are the Shacties respectively of Brahma, Vishnoo and Shiva. In these persons, the adoration of the female energy dates from a very early period. The adoration however took a grosser form in about the tenth century of the present era, in consequence of the publication of the Tantras, a class of works in which the female energy is worshipped through what is styled the maternal organ, which is regarded as a symbol of self-existent and all productive nature. The adherents of the Tantra ritual are termed Shacties or worshippers of the energy. They do not, at least in Southern India, form themselves into a separate class or sect, nor do they generally wear any characteristic mark. They are divided into two sections, called right-hand or Dacshinacharries and left-hand or Vaumacharries.

[32] RELIGIOUS BOOKS PREVALENT IN SOUTHERN INDIA.—The principal of these are the Pooranas. Their order as arranged in Southern India is as follows:—(1) Matsya, (2) Coorma, (3) Varauha, (4) Vaumana, (5) Brahma, (6) Veinavam (Vishnoo), (7) Bhagavata, (8) Shiva, (9) Linga, (10) Bowddhicam, (11) Nauradeeya, (12) Garooda, (13) Brahmaveivarta, (14) Kandam (Scanda), (15) Marcandeya, (16) Agneya, (17) Brahmaunda, (18) Padma. Of the last, the one half is Veishnava, the other half Sheiva; but the two parts are seldom together, and one of them is rare. The Oopapoorana, or minor works, as reckoned in the south, are:—(1) Oosanam, (2) Capilam, (3) Kalee (Caulica), (4) Sanatcoomaura, (5) Shaumbhavam, (6) Shivatanmam (Devy Bhagavata), (7) Showram (Aditya), (8) Doorvausam, (9) Nundy, (10) Nursinga, (11) Nauradeeyam, (12) Parausaram, (13) Bhaurgavam, (14) Aungiram, (15) Maureecham, (16) Maunavam, (17) Vasishta linga, (18) Vauroonam. The Sheivas have twenty-eight sacred books, termed augamas; which with them, supersede most of the Pooranas and Oopapoorana. They are as follows:—(1) Caumigam, (2) Yogasam, (3) Shindiyam, (4) Cauranam, (5) Achitam, (6) Teepattam, (7) Shoocmam, (8) Jagattiram, (9) Anjoomaun, (10) Shooprabhedagam, (11) Vijayam, (12) Nisvausam, (13) Swauyambhoovam, (14) Analam, (15) Veeram, (16) Rowravam, (17) Macootam, (18) Vimalam, (19) Chundranyaunam, (20) Vimbam, (21) Poorotgitam, (22) Lalitam, (23) Chittam, (24) Sandaunasarwottam, (25) Paurameshwaram, (26) Keeranam, (27) Bhedam, (28) Vautoolam. These last are rare, and very little known. The Padma-poorana, the youngest of the Pooranas, ranks its predecessors under the three classes of Sautveeca, Raujasa and Taumasah; or qualities of goodness, passion and darkness. They are more usually distinguished as Veishnava or Sheiva. The Matsya, Coorma, Linga, Shiva, Scanda, are considered to be Sheiva, the Agny medium, and the remainder Veishnava, or having that tendency. The Bharata, Ramayana, Maugha, Keralolputty, Parashoorama vijayam, Krishnaraja vijayam, &c., are really works of historical romance, but contain much pertaining to religion. The Harivamsha partakes of a historic and of a pooranic character. The influence exercised still by the Ramayana and Bharata, and the two chief heroes therein, Rama and Krishna, down to the present day, is very great.

[33] SKETCH ACCOUNT OF SOUTH INDIAN TEMPLES AND TEMPLE-WORSHIP.—The largest temple in Southern India is that at Shreerungam, built upon an island of the Cauvery of great fertility, and not far from Trichinopoly. It is surrounded by seven walls; the outer of which is nearly a mile each way in extent, so that the whole pagoda is nearly four miles in circumference. The space between each of the seven walls is 350 feet broad. In the middle of each wall over the entrance gate is a tower. The southern outermost tower has stones built in it 30 feet in length, and 6 feet broad, and is a fine though unfinished work. The building, as a whole, is a temple town rather than a temple. This was the residence of Ramaunoojacharya. The pagoda at Tanjore is not so large, but is fortified with a deep ditch and a rampart. The entrance towers are not remarkable, but in the middle there is a tower with 14 divisions. Each side of this tower measures 82 feet, and its height is 200 feet. One peculiarity of this tower is that it covers the shrine of the deity, whereas in most pagodas towers cover only the entrance. In front of this tower is a long building, the light enters only by its door. Besides these two, there are very large temples at Chidambaram, Trinomallee, Trivellore, Conjeeveram, Madura, &c. After these large temples, there are a number of ordinarily-sized ones. Small temples, down to simple shrines cover the country without number. In the towns and villages there is scarcely a street without a temple, large or small, and it is held by some to be impious to live in a street without a temple. But even in places where men do not live are to be found temples and gods without number; on the tops of hills, in deserted spots on the plains, by tanks, by rivers, by the side of roads &c. All large temples have high walls round their enclosures. Heavy towers are built over the entrances, broad at the summit and covered from top to bottom with figures. There are many columned halls for pilgrims, and here and there there are dwellings for separate gods. With very few exceptions each temple has a square tank attached to it. In the case of the larger temples, this is inside the outer wall. It is to be observed that there have been no temples either in the ancient or modern world which are equal in size to the Tamul temples. In the principal temples the idols are anointed morning and evening, and in some temples also at noon. This is generally done with melted butter; but sometimes with milk. It is by no means always Brahmins who do this, but often Shoodra poojarries. Before worship the priest must bathe, and during it must repeat the prescribed prayers or mantras. The anointing takes place amidst many ceremonies. Afterwards the idol is crowned with flowers or flowers are scattered in front of it. Besides this daily worship, there are a number of festivals. Generally there are eighteen in the year, excluding the more especial ones which celebrate certain events which have occurred on the spot. On such occasions villagers flock to the feasts in thousands. On certain especial occasions, the principal god is carried round the larger streets of the town. For this purpose there are peculiar cars, built like one of the temple towers and covered from top to bottom with carvings and figures of gods. Some of these cars are from fifty to sixty feet high. They move on solid wheels which have no spokes. Long ropes are attached to the front, and hundreds of people pull at these. As the streets are often soft and sandy, the car does not advance far in one day. The cars may only be pulled by men, and not by animals.

metal; and that after certain other acts the god leaves the idol. As to domestic worship some parts of the Vedic worship are still extant among the Brahmins, though mixed up with later ceremonial. The holiest prayer used by the Brahmins is the Gayatree, which, personified as a goddess, is the wife of Brahma. This prayer is preceded by the mystic word "Om," the type of the Hindoo trinity and the essence of the Vedas; and by three sacred words, Bhoor, Bhoovar, Swar, denoting "earth," "sky," and "heaven." The daily ritual occupies the greater part of the forenoon and is burdensome, and in consequence has fallen into desuetude by secular persons. The ordinary Tamulians have no fixed hours for worship, and perform no daily ceremonies. They keep no images in their houses; but only pictures of Krishna, Hanooman, Rama, the saint Ramaunoojacharya, &c. Followers of Vishnoo will keep representations of the conch and disc. A few Dravidians, who are specially religious, will in the evening light camphor before the pictures above named; and throw flowers on them, repeating the names of the deity. A few devote themselves to a life of religious observance by the ceremony of 'moodraudhaurana,' or wearing the stamp; when the mark of Shiva or Vishnoo is branded on both arms. Such persons abstain from animal food or strong liquor. The lowest classes have no fixed worship. The religious festivals[34]

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[34] SKETCH ACCOUNT OF THE PRINCIPAL HINDOO RELIGIOUS FESTIVALS OF SOUTHERN INDIA.—*Introduction.*—Besides the feasts peculiar to each district and temple, which return several times in the course of a year, the Hindoos have many more, which are held only once a year, and are commonly observed through the whole country. The religious festivals are closely connected with the systems of astronomy and chronology by which their periods are determined. The pure Tamul festivals follow the solar computation, and happen on the same day each year; unless there is a variation of one day on account of minor astronomical disturbances. The only representatives of this class at the present day are Pongal in the winter, the Tamul New Year in the spring, and the Audipundigay in mid-year. The rest are all reckoned by lunar time (like the English Easter), and fall at different dates each year; and as these calculations depend upon the particular data and mode of reckoning that may be adopted, the times of certain festivals differ slightly even in the same year in various parts of the country, in the same way that Easter is kept at different dates in the same year by the members of the Greek and Latin churches. Hence the high estimation in which almanacs are held by the Hindoos. A description of each of the principal festivals is given below beginning with the Teloogoo new year. (2) *Teloogoo New Year.*—This falls at the end of March or beginning of April. It is also the first day of the year for Canarese and Mahrattas, but not for Tamuls. Three days' rejoicing takes place, with exhibitions of fireworks and discharging of guns. Early in the morning each person anoints his body with oil and bathes in warm water. In the evening the family priest reads out passages from the new almanac, the family listening to hear their fortune during the coming year. (3) *Shreeramnavamy.*—This is the birthday of Dasharata Rama, an incarnation of Vishnoo. It is observed chiefly by Mahratta Veishnavites, but also to some extent by the Canarese and Teloogoos. It is not a Dravidian festival, and was introduced into the country by the Mahrattas. It occurs on the ninth day of the month Cheitra, or about the end of March. The image of the hero is set up, adorned, and worshipped; and portions of the Ramayana, or poetical history of Rama, his romantic adventures in search of his wife, and his success in rescuing her from the giants who had carried her off, are sung to large audiences. Festivals are also observed in Vishnoo temples, especially in the shrines dedicated to Rama, for ten days ending with the birthday. In the Tamul countries, the birth-day is observed in the Tamul month of Cheitra, which is a month later. (4) *Mylapore Ratotsavam.*—This is a local car festival. It takes place about the seventh day of Pungoony, that is to say in March or April. It is held in honour of the god Capauleshwara, and lasts ten days. The car procession takes place on the seventh day. (5) *Mylapore Aroopattmoover.*—This falls on the day after the last. Sixty-three saints are taken in procession. (6) *Pungoony Oottiram.*—This takes place in the month Pungoony, that is to say in March or April. It lasts fifteen days. Its origin is in the following tale. Shiva was conducting the united offices of the trinity; creating, preserving, and destroying. His consort, Parvaty, went behind her husband and put her hands over his eyes, the result being that the whole world was enveloped in darkness. Shiva thereupon cursed her and deposed her from her position of wife. Afterwards regretting what he had done, but being unable to restore her, he instructed her to sit for six months in the Cumbanuddy tank in Yecaumbaran temple and meditate on the deity, at the end of which time he appeared before her and restored to her her privileges. This is symbolised on the tenth day of the feast by placing images of the god and goddess (Caumautchy) together in one chamber. At Conjeeveram at the wedding hour of the deities private marriages are performed within the precincts of the temple. (7) *Tamul New Year.*—This falls on April 12th, the first day of the Tamul month Cheitra. It is observed in the same way as the Teloogoo new year; but no anointment takes place, the day being dedicated on the part of the Brahmins to the spirits of departed ancestors. (8) *Narsimha Jayanty.*—In honour of the lion-man, the fourth incarnation of Vishnoo, in which he destroyed the giant Hiranyacaship. On this day Veishnavas fast till the evening, when after worshipping the god, they eat in company. The special offering to Narsimha is sugar-water (paunacam). This festival falls on the 13th day of the second month Veishaukha. (9) *Garooda Ootsavam at Triplicane.*—This occurs on the third day of the month Cheitra, that is to say in April or May. It is held in honour of the god Partasaurathy at the place named. (10) *Ratotsavam at Triplicane.*—This is a car festival and is held in conjunction with the last, occurring four days later, that is to say on the seventh day of Cheitra. (11) *Garooda Ootsavam at Conjeeveram.*—This takes place in the month of Veiyausy, or in May. It lasts ten days, during each of which the Vishnoo idol Varadarajasawmy visits Shiva Canjy, or Larger Canjy, on various vahans for the purpose of permitting the other deities to pay their respects to him. He thus goes down the street two miles long, which leads from his own temple to the Rajaveethy, at the foot of which he rests for a while in a mantapam belonging to him. Varadaraja and Yecaumbaranauthar the Shiva idol are held to be brothers-in-law, and the evening of the sixth day of the feast is occupied by a visit to the Shiva temple. The image is brought down to the front of it, taken thrice round about from right to left and the same number of times the opposite way, and then taken away again. This festival is a display of Veishnavism against the old Sheivism. (12) *Auny Amavausya.*—This is the new moon festival of the month of Auny. The floating festival at Trivellore falls on this date. (13) *Audy Amavausya.*—This is the new moon occurring in the solar month Audy, and is observed only by the Tamuls. (14) *Auvanimoolam.*—This is held in the month Auvany, that is to say in August or September, on the day on which the constellation Moolam appears. It is observed only by Tamuls. (15) *Vara Lutchmee Vratam.*—This occurs in the month Audy, or about August. It is a festival attended by women only, who make offerings to Lutchmee the wife of Vishnoo and invoke her aid in preserving them from being widows. Each woman celebrates the festival in her own house. (16) *Avaniyavittam or Oopacarmam.*—This is peculiar to the three twice-born castes, and is the annual renewal of their sacred order, a new thread being put on. One meal only is taken on this day. It occurs generally in August. (17) *Gocoola Ashtamy and Shree Jayanty or Krishna Jananam.*—The birth-day of Krishna, an incarnation of Vishnoo, which falls on the 7th or 8th day of the fifth month Shrauvana, or about the end of August. It is observed chiefly by Veishnavas, and particularly by the class of

at the different temples are often prolonged for several days, with music, dancing, and various excesses which are prescribed by Hindoo manners. Once or twice in a year the people of the neighbourhood assemble to celebrate such feasts. Religion and business are combined on these occasions, and the rural inhabitants buy of traders. For the larger festivals the temple managers send out messengers throughout the country to give information as to the date of the occurrence, and the means of proceeding to the shrine. Frequently votaries will travel for hundreds of miles. The feasts are maintained mainly through the influence of Hindoo women. The ordinary life of these is dull and cheerless, and the festival is regarded as a relief from the routine of home duties. The passion for pilgrimage is universal, and the various forms of penance and self-infliction form another mode of propitiating the favour of the deity. Meritorious devotion consists of vratas, or penances of various kinds; and vratacalpas, or the fruit or benefit of such penitential observances. The expiation of crime is not so much here concerned, that being provided for by more costly appointments; as the prospective acquisition of some future benefit. The vrata is a condition laid down by authority, which is to be performed; and the calpa is the assured fruit, if the observance be fully conducted. Some vratas require much time. There are those which last for

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cow-herds who are denominated Yadavas. It is a fasting day for Brahmins. In the evening the sectarians bathe, and after worshipping Krishna by offerings of toolasy (Ocymum sanctum) and other flowers parade the streets with hilarity. Sweetmeats are manufactured on this occasion in great variety. On the evening of the following day the images are carried in procession. Cow-herds keep up special rejoicings. (18) *Saumavaidy Oopacarmam.*—This is similar to the Oopacarmam mentioned above. It is however observed only by those of the three twice-born castes who belong to the Saumaveda school of philosophy. (19) *Pillaiyar Chowty or Vinauyaca Chatoorty.*—This occurs on the fourth day of the sixth month Bhaudrapada, and is in honour of Vinayac or Pillaiyar, son of Shiva, who is worshipped by all Sheiveites as the dispenser of learning and the remover of difficulties from suitable undertakings. This deity is also called Yigneshwara and Ganesh. On the day in question clay images of the deity, riding upon the back of a rat, are made, duly consecrated, and worshipped in houses and families; they are afterwards thrown into a river or tank. (20) *Ananta Chatoordashee.*—This is a religious ceremony observed by males only. It occurs on the 14th day of the sixth month. At the break of day the Brahmin family priest consecrates a vessel, by reciting certain formulas. He is then presented with cloths and money. This ceremony is performed only by those who have previously made a vow. (21) *Mahaulya Amavausya.*—This is the new moon of the lunar month Bhaudrapada, when ceremonies are performed in honour of deceased ancestors, and food is offered to them. The whole fortnight indeed ending with the new moon is held sacred to the deceased ancestors, and goes under the name of Mahaulya Pacsham; ceremonies being performed on the tithy of the deceased by the surviving heir who performed his funeral obsequies. (22) *Saraswatee Poojaurambham, Ayoodha Poojah and Dusserah.*—This festival is principally in honour of deceased ancestors. It corresponds to the Doorga Poojah of Bengal, and is supposed to commemorate a victory obtained by Doorga, wife of Shiva, over a demon. It is celebrated on the 7th, 8th, and 10th days of the seventh month Ashwina, or in October, and is religiously kept. On this day the upper classes of Hindoos make offerings of rice, fruit, flowers, and new cloths to their ancestors. Brahmins worship Saraswatee, the goddess of learning. Every one offers sacrifice also to the tools and implements which he uses in the exercise of his profession, the labourer to his plough, the mason to his trowel, women to their rice-mill, &c. This ceremony is the Ayoodha Poojah (sacrifice to implements). In former times princes gave public shows with a distribution of prizes on these occasions. (23) *Deepauvaly or the Feast of Lights.*—This is celebrated on the 28th day of the seventh month, which occurs in October or November. The name means the Feast of Lamps, and a great number of lamps and lanterns are hung round the doors of houses. Husbandmen offer sacrifices to the fields, and in some places to the dunghill. The chief observance at this festival is an oil-bath early in the morning, which is considered equivalent to bathing in the Ganges. Fireworks and crackers are also used in large quantities and guns are fired. This feast is possibly a relic of ancient fire-worship. (24) *Gowry.*—This is held on the third day of the sixth month Bhaudrapada, or in the beginning of September, and lasts several days. It is principally in honour of Shiva's wife Parvaty, one of whose names is Gowry. The festival is concluded by erecting a shapeless statue in each village, composed of paste of grain and intended to represent the goddess. This image is finally placed under a canopy, and carried through the streets. (25) *Bharany Deepam.*—This is a feast of lights celebrated in honour of Vishnoo. It occurs in November or December. (26) *Cartigay.*—A similar festival to the Deepauvaly, observed by Tamuls only. It occurs on the full-moon day in the solar month Cartigay when the constellation Cartigay appears. In some parts of the country most of the observances of the Deepauvaly are adopted at the Cartigay. (27) *Vishnoo Deepam or Permaul Tirnaul.*—In honour of Permaul or Vishnoo, celebrated by the Veishnavas. It is generally celebrated on the day after Cartigay, and is considered to be the day on which Balichuckravarty obtained immortality, he being one of the seven Chiranjeevies or the undying who live till the end of the world. (28) *Veicoonta Yecaudashy.*—This occurs on the 11th day of the ninth month Margasheersha, or in December, and is a special festival of the Veishnavas. On this day the gates of paradise are open to all pious people; hence another name for the feast, viz., Swargadwaura, 'gate of Heaven.' It is a fasting day for both Brahmins and Shoodras. The feast is particularly sacred at Shreerungam, though common to Vishnoo temples in general. (29) *Aroodra Darsanam.*—This is held in the month Margaly, that is to say in December or January. It lasts for ten days. It is particularly sacred at Chidambaram. (30) *Bhogy Pundigay.*—This is an unimportant festival except for the fact that it immediately precedes the Pongal and is generally looked upon as part of that feast. It occurs on the last day of the month Margaly, or in January. There are no particular religious ceremonies connected with this festival. It is looked upon as a period for relaxation. (31) *Pongal or Sancraunty.*—This is one of the most famous festivals. It is celebrated on the first day of the Hindoo month Makara or Tei, which falls about the 11th or 12th of January, that being the day on which the sun passes from Sagittarius to Capricornus, and lasts three days, during which time the Tamulians employ themselves in visiting their friends. This feast is such for two reasons. The first that the month of Margaly (December), every day in which is unlucky, is about to expire; and the other, that it is to be succeeded by a month, each day of which is fortunate. In order to guard against evil, every morning during the month of December the women of the family scour a space before the door of each house, upon which are drawn by means of flour certain white-lines. Upon these lines are placed balls of cow-dung, each bearing a citron blossom. The balls are daily picked up and preserved, and on the last day of the month, the women put the whole in a basket, and go with music to some waste place, where they deposit the relics. The meaning of these very primitive customs has yet to be examined. The first day of the succeeding festival is called Bhogy Pongal, and is kept by inviting near relations to an entertainment. The second day is called Soorya (sun) Pongal, or Peroom (great) Pongal, and is set apart in honour of the sun. Married women having purified themselves by bathing clothed, boil rice and milk in the open air. This is the chief day for visits. The second day is called the

months, or for years ; and there are those which are observed on particular days to be continued through several years. A majority of these observances are intended for women. It is not infrequent to see a woman walking round two trees, considered to be married, and planted in an exposed situation on the bund of a tank. The object of this performance on Fridays, and on Monday when new-moon day, is to obtain offspring. Some vows are of difficult performance; such as lighting one hundred thousand lights in a temple, or presenting the same number of sprigs of sweet basil before a shrine of Krishna.

59. Boodhism is extinct in Southern India. Those sometimes called Booddhists are really Jains. But the form of religion is important historically and with reference to its intimate connection with Jeinism which still subsists. The Booddhists, while they reject the pantheon of the Hindoos, admit an indefinite

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Pongal of cows. A mixture is made of water, saffron, and leaves, with which the cattle are sprinkled. The animals are then adorned with garlands, their horns are painted, and strings of cocoanuts and other fruits are hung on them. They are then driven out with music, and allowed to graze for the rest of the day without a keeper. The festival concludes with a procession of idols to the village common. (32) *Tei Amavausya.*—This is the new moon falling in the solar month Tei, and is observed only by Tamuls. Shraddha, or funeral offerings to deceased ancestors, are performed specially on this day by the Hindooized upper classes ; presents being at the same time made to Brahmins. The favourable days for this purpose are the new moons from August to January, but the Tei Amavausya is the chief. (33) *Teipoosham.*—This day is sacred to Soobramanya, the second son of Shiva. The feast is particularly observed at the shrine of Pulney in Madura. The day is considered auspicious for purposes of education, next after the Dusserah. The harvest feast is observed on the same day in Vishnoo temples. (34) *Maha Shivarautry.*—"The night of Shiva," a festival of great importance among Lingayets. It is celebrated on the 28th day of the Hindoo month Maugha, at the end of February or beginning of March, and the ceremonies consist of purification of the Lingas. After sacrifices, the celebrators should pass the night awake, employing themselves in reading pooranas relating to Shiva. The feast is particularly observed at Calastry in North Arcot District. (35) *Magizhady Sevay at Trivettore.*—This occurs in the month Mausy, in February. (36) *Holy Pundigay, Hootausana Powrnamy or Caumanpundigay.*—Celebrated on the full moon of the lunar month Phalgoona, occurring generally in March. It is observed principally by the lower classes to commemorate the destruction of Cauma (Cupid) by the god Shiva. At the close of the festival a pile is lighted in every village, on which a cake is placed In Bengal it is called Holy, or Swinging festival. In Travancore cocks are offered by Nayars, who kill them before the door of the temple of Kalee or Bhagavatee. (37) *Almanac.*—The following list shows the dates of the principal festivals for a period of six years, placing them according to the English calendar year. Aroodra Darsanam occurs often at the beginning of a calendar year, and then again at its end; and in the following calendar year it will be un-represented. The same for Veicoonta Yecaudashy. The reason is that they follow the solar month Margaly :—

Hindoo Festivals.	1881.	1882.	1883.	1884.	1885.	1886.
Aroodra Darsanam	...	{ Jan. 4, & Dec. 25 }	...	Jan. 11	{ Jan. 1, & Dec. 22 }	...
Bhogy Pundigay	Jan. 11	Jan. 11	Jan. 12	Jan. 12	Jan. 11	Jan. 11
Pongal	Jan. 12	Jan. 12	Jan. 13	Jan. 13	Jan. 12	Jan. 12
Tei Amavausya	Jan. 29	Jan. 19	Feb. 7	Jan. 27	Jan. 15	Feb. 3
Teipoosham	Jan. 16	Feb. 2	Jan. 23	Feb. 9	Jan. 30	Jan. 20
Maha Shivarautry	Feb. 26	Feb. 16	March 7	Feb. 25	Feb. 13	March 4
Magizhady Sevay at Trivettore	Feb. 12	March 3	Feb. 20	March 10	Feb. 27	Feb. 17
Holy Pundigay	March 15	March 4	March 23	March 11	Feb. 28	March 19
Teloogoo New Year	March 30	March 20	April 8	March 28	March 17	April 5
Shreeramnavamy	April 8	March 27	April 15	April 4	March 24	April 13
Mylapore Ratotsavam	March 12	March 31	March 20	April 7	March 27	March 16
Mylapore Aroopattmoover	March 13	April 1	March 21	April 8	March 28	March 17
Pangoony Oottiram	March 16	April 2	March 23	April 8	March 29	March 20
Tamul New Year	April 12	April 12	April 12	April 12	April 12	April 12
Narsimha Jayanty	May 12	May 1	May 20	May 8	April 27	May 16
Garooda Ootsavam at Triplicane ...	April 16	May 4	April 24	April 13	May 1	April 20
Ratotsavam at Triplicane	April 20	May 8	April 28	April 17	May 5	April 24
Garooda Ootsavam at Conjeeveram ...	May 13	May 31	May 21	May 11	May 28	May 18
Auny Amavausya	June 26	July 14	July 4	June 22	July 11	July 1
Audy Pundigay	Aug. 14	Aug. 14	Aug. 14	Aug. 13	Aug. 14	Aug. 14
Auvanimoolam	Sept. 2	Aug. 24	Sept. 10	Aug. 30	Aug. 20	Sept. 6
Vara Lutchmee Vratam	Aug. 5	Aug. 25	Aug. 17	Aug. 1	Aug. 21	Aug. 13
Avaniyavittam	Aug. 9	Aug. 28	Aug. 18	Aug. 6	Aug. 25	Aug. 14
Gocoola Ashtamy	Aug. 16	Sept. 4	Aug. 24	Aug. 13	Sept. 1	Aug. 22
Shree Jayanty	Aug. 18	Sept. 5	Aug. 26	Aug. 15	Sept. 2	Aug. 23
Saumavaidy Oopacarmam	Aug. 28	Sept. 14	Sept. 4	Aug. 24	Sept. 10	Aug. 31
Pillaiyar Chowty	Aug. 28	Sept. 16	Sept. 5	Aug. 24	Sept. 12	Sept. 1
Ananta Chatoordashee	Sept. 7	Sept. 26	Sept. 15	Sept. 4	Sept. 23	Sept. 12
Mahaulya Amavausya	Sept. 23	Oct. 11	Sept. 30	Sept. 19	Oct. 7	Sept. 27
Saraswatee Poojah	Sept. 30	Oct. 18	Oct. 8	Sept. 27	Oct. 14	Oct. 4
Ayoodha Poojah	Oct. 2	Oct. 21	Oct. 10	Sept. 28	Oct. 17	Oct. 6
Dusserah	Oct. 3	Oct. 21	Oct. 11	Sept. 29	Oct. 18	Oct. 7
Deepauvaly	Oct. 22	Nov. 9	Oct. 29	Oct. 17	Nov. 5	Oct. 26
Kedaura Gowry Vratam	Oct. 22	Nov. 10	Oct. 30	Oct. 18	Nov. 6	Oct. 26
Bharany Deepam	Dec. 3	Nov. 23	Dec. 11	Nov. 30	Nov. 21	Dec. 8
Cartigay Deepam	Dec. 4	Nov. 24	Dec. 12	Dec. 1	Nov. 22	Dec. 9
Vishnoo Deepam	Dec. 5	Nov. 24	Dec. 13	Dec. 1	Nov. 22	Dec. 10
Veicoonta Yecaudashy	{ Jan. 11, & Dec. 31 }	Dec. 21	...	{ Jan. 9, & Dec. 28 }	Dec. 18	...

number of incarnations of the great spirit Booddha, who animated in succession the bodies of their chief priests and whose first human incarnation was in the person of the founder of their faith. They believe in the eternity of matter, the supremacy of intelligence as a property of matter, and the transmigration of souls. They deny the authority of the sacred books of the Hindoos, do not acknowledge caste, and have no respect for fire; but they have great regard for animal life. Their priests live much in monasteries. Indian Booddhism in its latest stages was a system of pure religious atheism and nihilism. *Ῥεῖ τὰ πάντα*, it said; every thing is flux. And the end of all things is nirvauna or extinction. The sacred books of the Booddhists are called tripitaca or three baskets. The Jains profess the doctrines, and in some sense are an offshoot, of Booddhism; but admit caste which Booddhism rejects. They worship many of the Hindoo deities in addition to their own saints; who are twenty-four in number called Teertancaras, and represent such as by ascetic practices have crossed the ocean of human existence and are then regarded as superior to the gods. Their priests are of all castes. The Jains have ever been addicted to learning. In South Canara the Jain community was once large. There are still extant the remains of large Jain towns, such as Moodbidry, which contain the ruins of numerous Jain temples; but from these the Jain population has all but vanished. In the southern talooks of North Arcot and an adjoining talook of South Arcot there are Jain cultivators. Both Booddhists and Jains use Pali as their sacred language[35].

60. The religious divisions of the Mahomedans are simple. They are classified as Soonnees, Shiahs, and Wahaubies. The Soonnees regard themselves as the only orthodox followers of the prophet. They insist on the supremacy of Mahomed over all created beings, and acknowledge the succession of Aboo Bakr, Omar, Osmaun, and Ally as the first four caliphs, or successors of Mahomed. The Shiahs dispute the succession of the first three caliphs, and acknowledge Ally alone as the rightful successor. They reject certain traditions favoured by the Soonnees, and insist on the authority of the Koran alone. The Wahaubies are chiefly

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[35] SKETCH ACCOUNT OF THE EXISTING JEINA SECT IN SOUTHERN INDIA.—The leading tenets of the Jains are as follows. They deny the divine origin and infallibility of the Vedas. They believe in a supreme being. They revere certain holy men who have acquired by practices of self-denial and mortifications a station superior to that of the gods. They show extreme veneration for the sanctity of animal life. The supreme being is named Aroogan, the same as the Arhat of Booddhism. The name signifies the "perfect one," and besides this the deity has one thousand and eight other names. He is possessed of all attributes, yet abides in a state of rest. He neither saves nor destroys. The world is uncreated and imperishable; and so are the varied forms of life with which it is peopled. Below the earth there are seven hells; above it there are sixteen worlds of gods; higher than these a world, termed Augamindraloca; and highest of all, the world of bliss, the abode of Aroogan. The world has had its golden age, its time of increase. Then the stature and age of man were inconceivably great. There was then no sin and all men went to heaven. Men live now in the time of decrease; and the stature and age of man have both been greatly diminished. If a man have a large supply of merit, he departs at death immediately to heaven; if he have much demerit he descends at once to one of the seven hells; if merit and demerit have been commingled in his life, he undergoes transmigration. A worse age is coming, when no man will go to heaven. During a long period of years that surpasses arithmetic, the world has been visited by fourteen Menoos and twenty-four Teertancaras. In this age, these Teertancaras are to be regarded as deities; and they are spoken of as incarnations, as possessed of the divine nature, and as exercising government over gods and men. Temples are built for them, images are made of them, and worship is rendered to them. Large portions of Hindoo mythology are incorporated into the sacred books of the Jeinas. Brahma, Vishnoo, Shiva and all the Hindoo deities are regarded as the servants of Aroogan and as possessed of a sacred character. Hence images are made of these and are placed in Jeina temples, where they obtain a share in the reverence of worshippers. The poojah of a Jeina temple differs little from that of Hindoo temples. The veneration for animal life is shown in various peculiar ways. Some Jains carry a broom to sweep the ground before they tread upon it. They never eat or drink in the dark, fearing that they might inadvertently swallow an insect. There are two main divisions of the Jains, the Digambaras and Swetaumbaras. The former means "sky-clad," or naked; and the latter the "white robed," the teachers being so attired. In the present day the Digambara ascetics do not go naked, but wear coloured garments. These however they lay aside at meals. There are other minor sects besides those noted. Secular Jains follow the pursuits of other Hindoos. They give alms to their priests, termed Yaties, and present offerings and pay homage to their deified heroes or Teertancaras. There is no real distinction of caste amongst the Jains in this part of the country. They are all called Trivarnicas, a generic name for the three sub-divisions, Brahmins, Cshatriyas, and Veisyas; and a Jain is a Brahmin, Cshatriya, or Veisya according to the calling he pursues. But a Jain Brâhmin is not superior to a Jain Cshatriya or a Jain Veisya in social position. All the three intermarry indiscriminately. The Jains are very unwilling to be confounded with Hindoos who acknowledge caste and Brahminical authority. They never associate with the Hindoo Brahmins or Shoodras on occasions of festivals and marriages. There is no intermarrying between the Jain and Hindoo, and the Jain has his own place of worship. The principal localities of the sect are at present Rajahmundry in the Northern Circars, Conjeeveram in North Arcot, Seringapatam and Shravana Belgola in Mysore, and Moodbidry on the Western coast. Small colonies of them are found in most of the principal towns of the peninsula who devote themselves to commerce and agriculture. In South Arcot the Jains abound chiefly in the Tindivanam talook, where there are 25 villages of them. There are about 45 Jeina villages in the whole of that district. In North Arcot they are mostly located in the Arcot, Wandiwash, and Poloor talooks. The chief priest resides permanently at Chittanore in the Tindivanam talook, where there is a large Jain temple. There are minor temples in 22 villages of the South Arcot district. In South Arcot there are many apostate Jains, whose ancestors gave up their worship through Hindoo persecution. There can be no doubt that in former times when the Tondeimandalam country was ruled by Jains, the Jain worship was very extensive there; as it was also in Mysore, Madura, and Canara, where the ruling authorities during the eleventh and twelfth centuries were Jains.

puritans of the Soonnee sect. The Soonnees in this Presidency are eighty-nine per cent. of the whole. They abound in all the divisions of the Mahomedan community, but principally among the Moplahs of the Western Coast. The largest proportion of Shiahs is to be found amongst Mahomedans of Pataun or Moghul descent. The Wahaubies are but few in number. The Mahomedans of Southern India are in a measure Dravidians by race. During Mahomedan rule forcible conversion was not uncommon, and to this day proselytism proceeds among the lower orders of society. It is especially active in Malabar, where the lowest castes of Hindoos are numerous, and treated with disdain by the superior castes. Conversion to Mahomedanism in their case implies the prospect of advance in the social scale. The South Indian Mahomedans must worship one God, but even more than in the north they have made additions to the simplicity of Islam by the adoration of peers or saints, by the veneration of relics, and by conforming to various Hindoo customs and superstitions[36].

61. The Christian population of Southern India is numerically important. In the native states of Travancore and Cochin, Christian communities, numbering many thousands of persons, flourished through the tolerance of the ancient Permaul rulers for centuries before the Portuguese established themselves in Western India. Rival bishops at present dispute supremacy over the Syrian churches of the Western Coast. Where the prevailing Hindoo faith is Vishnoo worship, Christianity has made but little progress. The five districts of Ganjam, Vizagapatam, Godavery, Bellary, and Cuddapah contain hardly any Christians and the adjoining districts of Kistna, Kurnool, and Nellore only a few. On the other hand, the southern districts have long been strongholds of Christianity. Xavier, Nobili, Beschi, Schwartz, Jænicke, and many more names now historical, are associated with the development of Christian churches in the south. Early in the sixteenth century

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[36] SKETCH ACCOUNT OF THE PRINCIPAL MAHOMEDAN FESTIVALS AND RELIGIOUS OBSERVANCES OF THE PRESIDENCY.—*Introduction.*—The following are the principal Mahomedan festivals, &c., arranged according to the Hijrah year, an explanation of which is given in the article on Time, Money, Weights and Measures. Each Hijrah begins about eleven days earlier than its predecessor, and the festivals vary with the calendar year. In the Hijrah year 1302 (1884-85) they fall on the following dates:—Moharram, October 21st 1884; Teyrah Teyzee, December 2nd 1884; Akhiry Chahaur Shamba, December 17th 1884; Baurah Wafaut, December 31st 1884; Geearween, January 28th 1885; Shab i Baraut, May 29th 1885; Ramzan ka Roza, June 15th 1885; Ramzan ki eed, July 14th 1885; Bakreed, September 20th 1885. In all other years the same intervals occur between them. Every Mahomedan month should properly speaking begin when the new moon is seen, and not before; an arrangement which presents no difficulty in the clear sky of Arabia. In this country the month is deferred for one day for that cause, but not longer. The festivals may vary similarly by a day. (2) *The Moharram.*—The religious function of the 'Moharram' (lit. 'that which is sacred'), in the first month of the Hijrah, was observed among the Arabs before the time of Mahomed, as being the month of the creation. Since the martyrdom of the prophet's grandson Hossain, whom the Shiahs state to have been his lawful successor in the Caliphat, his fate has been specially commemorated by them at this period. The Soonnees, who are the bulk of the Mahomedan community in this as in all other countries except Persia, observe the occasion as an original ordinance, and particularly the tenth day, being the day on which God is said to have created Adam and Eve, heaven, hell, the tablet of decree, the pen, fate, life, and death. In fact the lower classes take this as a festival, but the upper classes as a solemn exercise. The observance commences if practicable on the evening the new moon becomes visible as above mentioned and may be said to last for ten days, this period being called 'aushra.' 'Ashoor-khanas' (ten-day-houses) are erected of mats and screens, so as to be ready for the new moon. In front of each 'ashoor-khana' is dug a circular pit, in which fires are kindled every evening during the festival, round which various amusements such as fencing, &c., take place. Every night funeral eulogiums are recited at one or other 'ashoor-khana.' On particular days processions are formed carrying 'taboots' (biers or coffins) formed of a frame-work of bamboo, covered with paper, and lighted up inside, and 'aulams' (representations in metal, paper, or wood of Hossain's banner); the chief night for these processions is the ninth night, on which the streets are illuminated and various kinds of diversion proceed. During this period Mahomedans do no work, drink no intoxicating liquors, and do not marry. From the fifth day, rich men and merchants dispense milk, sherbet, and scented water to the people. On the fifth day, necklaces of flowers and coloured threads are worn. On the seventh day there are representations of what is regarded by the Shiahs as the marriage ceremony of Cassim (son of Hassan, and great-grandson of Mahomed); and on the eighth day a spear with a lime on the top of it is carried about emblematic of Hossain's head which was carried through different cities of Syria on the point of a javelin. A horse-shoe of metal, wood, or paper, symbolizing Hossain's swift horse, is also carried about. A distinguishing feature of the festival is the number of men dressed up to represent various characters, who go about the streets and serve for the amusement of the people. A newly married bride and bridegroom may not see each other during these ten days. (3) *The Teyrah Teyzee.*—The 'Teyrah Teyzee,' or the first thirteen days of the auspicious second month 'Safar' are considered unlucky, owing to the prophet having been ill on those days. A newly married bride and bridegroom may not see each other on these days and no good work is undertaken during their continuance. On the twelfth day all Mahomedans bathe. They then take maash (black gram), unboiled rice, wheat, and til (sesamum), mix them together, put them on a tray, and deposit a small cup containing oil in the centre of the dish. They finally give away the contents of the tray to beggars. 'Kichery' (a mixture of rice and doll) and vegetables are then prepared and distributed to the poor. This feast is not observed by the higher orders. (4) *Akhiry Chahaur Shamba.*—The last Wednesday of the month 'Safar' is held as a feast in commemoration of Mahomed's having experienced some mitigation of his last illness and having bathed for the last time before death on that date. In most parts it is customary, in the early morning of this day, to write (on mango-leaves with rose or saffron water, or ordinary ink) seven verses of the Koran, known as the 'Seven Salaams,' then to wash off the ink and drink it as a charm against evil. The usual observances on this day are to bathe, put on new clothes, and generally to take a holiday. This feast is not observed by the Wahaubies. (5) *Baurah Wafaut.*—Mowlood Shareef commonly called Baurah Wafaut commemorates the birth of the prophet on the twelfth day of the third month, on the second day of which the death of the prophet also took place. This is the most essential of the feasts. Great processions take place, as during the Moharram. Recitations are made recounting the life, miracles, and death of the prophet. During all these twelve days educated persons spend the time in reading the Koran and the rich

there were Catholic communities near Cape Comorin and the movement has spread northward. The Catholics have lately found a footing in Kistna and Vizagapatam. The Protestants, whose operations were once limited to Tanjore, have spread over the three southernmost districts and have now communities in thirteen districts.

62. MANNERS AND CUSTOMS.—The manners and customs of the people have been most closely examined by the missionaries, who have thereby added one to several other benefits conferred by them on the secular administration. The habits of the Tamulians have been specially observed in former days by Fathers Bouchet and Dubois of the Catholic establishment, and of late by the Reverends E. R. Baierlein and S. Mateer. To the two authors last named these pages are in several places indebted.

63. The ordinary costume of the Tamulian of the Carnatic is simpler than that used in any other part of India, for he has little or no alternation of climate to provide against. While at work, fishers, tree-climbers, and others wear but a shred of clothing. The better classes wear the lightest clothing that is possible. With these, the upper part of the body is usually exposed to the air; but if not, over one shoulder or round the neck a muslin cloth is thrown. The principal garment worn by the better classes is a cloth fastened round the waist and extending more or less to the ground. This is a single piece of cloth, and is fastened merely by folding one part within the other. On important occasions only and in public, the wealthiest wear a long made-robe. With the women, where one cloth covers the person, the effect is highly graceful. Ancient sculptures show the same costumery as is now worn. For material the native-made calico or muslin is preferred; but foreign goods also obtain, from their superior economy. There is a ceremonial use of silks, dyed or printed in bright colours. Though living under a burning sun, it is not natural to the Tamulian to cover his head. The turban is of modern use.

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distribute alms to the poor. Ceremonies are also performed in honour of the 'kadam i rasool (Prophet's foot-step), which is the impression of a foot on stone, kept in a box and also in honour of the asarishareef (the sacred hair) being a hair of the prophet's beard. On the twelfth day there are illuminations, and 'pillaus' are prepared and distributed to all. This festival is not observed by the Wahaubies, as its observance is not enjoined in the Koran. (6) *Geearween.*—This festival occurs on the eleventh day of the fourth month, in honour of Peer i Dustageer, the chief among 'walies' (saints) and a great miracle worker. He is revered by Soonnees but not by Shiahs. On the tenth of the month a large green flag is carried about, planted in an appointed place, and anointed with sandal-wood; while recitation is made of verses from the Koran. On the eleventh day there are illuminations, and food is distributed. When cholera or other plague is raging, a flag is similarly taken out in honour of this saint, on successive Thursdays, three or four times. Barren women sometimes vow that if they should have a child, they will dedicate it to the 'Peer.' Should their wishes be accomplished, they fix a large silver ring on the child's ankle on this day. (7) *Shab i Baraut.*—This is on the fourteenth day of the eighth month, Shaubaun. 'Baraut' is the book in which are recorded annually all the actions that men are to perform during the ensuing year, and also all the children of men who are to be born and to die in the year. 'Shab i Baraut' thus means 'the night of the record.' This is the Persian name, the Arabic being 'Leilat ool Moobaraca.' On the thirteenth of the month food is prepared in the name of deceased ancestors and relatives, prayers are offered over the dish, and portions of the food are distributed to relatives and friends. The lower orders make elephants and lamps of clay in the name of the boys and girls in the family, and a scaffolding being erected illuminations are made. Sitting up all night and reading the Koran are commanded by the prophet, and observed by the higher orders. Fire-works are much used in this festival. (8) *Ramzan ka Roza.*—This fast takes its name from the name of the ninth month. From sunset to 4 a.m. it is allowable to break the fast, but from the latter hour until sunset, it is unlawful to eat or drink. In this manner a Mahomedan should fast every day during the month, and continue day and night engaged in the contemplation of Allah. Every day after evening prayer twenty ceremonial prayers of great length are recited in every mosque in the presence of a large number of the faithful. On the last Friday a special 'khootba' or farewell sermon is read in mosques. Some people during the whole month, others for only part of it, remain in a corner of the mosque, only going out on occasions of necessity, and to perform purificatory ablutions. These pass their time in reading the Koran or praising Allah. The twenty-seventh night of the month is called the 'Leilat ool Kadar' or night of power, on which the Koran came down entire in one volume to the lowest heaven, whence it was revealed in portions by Gabriel. On this date people should sit up all night, burning frakincense, praying, and reading the Koran. The following are exempted more or less from the necessity of fasting; the sick, the aged, women suckling infants or pregnant, and very young children. A sick person, a traveller and others must keep the month's fast as soon as they are able to do so, this being called 'Kazah' or 'expiation.' It is possible that Mahomed borrowed the plan of the thirty days' fast from the Christian Lent. (9) *Ramzan ki Eed or Eed ool fitr.*—This is the festival following the Ramzan fast, and commences on the first day of the tenth month, Shawaul. On this day all Mahomedans bathe, put on new clothes, and perfume themselves; they then distribute alms of grain or corn, in specified quantities called fitrat and go to prayer in the mosque, where the 'khateeb' (priest) offers prayers and supplications for the prosperity of the religion, and for preservation from misfortunes. On the conclusion of this prayer some of the rich present the priest with shawls or cloths, and when this has been done the whole congregation rise up, and call out 'deen' (religion). Guns are then fired off. Friends mutually embrace, and strangers shake hands and congratulate one another. Beggars meanwhile collect, and alms are distributed. Visits are now paid, and betel and scents are presented. Schoolmasters distribute congratulatory addresses written on ornamental paper among their scholars, and receive presents. A great place of resort during this festival is the Eedgah which is a platform specially constructed outside every town, for the purpose of offering prayers at this and the Bakreed festivals. (10) *Bakreed.*—This is on the tenth day of the twelfth month Zool Hijja. The festival is also called Zihaj or Eed ooz Zahah, and is held in commemoration of Abraham's sacrificial offering of his son (Ishmael according to Mahomedans, Isaac according to Hebrews and Christians). On the ninth day, food is cooked, and supplications are offered for deceased ancestors. On the day of the festival, the people assemble for prayer, both in mosques and at Eedgahs. On their return home the head of the family takes a cow (whence the name 'Bakreed' or 'cow-festival'), sheep, or camel, and sacrifices it by cutting its throat, repeating the words 'in the name of the great God.' The flesh is then divided; two-thirds being kept by the family, and one-third being given to the poor.

The most indigent people wear rude caps, composed of the thick leaf-sheath of the areca palm tree; but this is rather for ornament than for protection. Neither have the scorching sands of the Carnatic taught the Tamulians the necessity of covering the feet, in which respect they experience no inconvenience. Those whose profession it is to make long journeys on foot put on a leather sandal, but this custom seems to come from the upper tableland. The Mahomedan slipper is now worn, peaked and turned backwards and without heel. Those of the highest rank put off the foot-covering before receiving visitors or entering a house, in the same way that Europeans of whatever grade uncover the head. On the other hand they retain the turban on the same occasions, to put off which according to the rules of Hindoo etiquette would be a great impropriety [[37]]. Most of the castes shave the hair from the head and face at regular intervals. But a small portion of the

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[[37]] Sketch Account of the Clothing worn by the South Indian Population.—*Hill and jungle tribes.*—These as the most primitive specimens of the Dravidians may be considered first. The men go naked but for the lungooty, a piece of cloth placed between the upper part of the legs and fastened at both ends by a cord which is secured round the waist. The women among some of the tribes wear merely the waist cloth, a cloth fastened round the waist and falling over the lower part of the body; but among the more civilized the woman's cloth covers the whole person. None of the hill or jungle tribes proper wear any covering for either head or feet. The hill tribes from the necessities of the climate carry a rug of cotton or cotton mixed with wool, which they fold round their bodies in different fashions when they require that covering. The Coorumbar and Iroolar of the Neilgherries inhabiting the slopes may be considered as intermediary between hill and jungle tribes; the men rarely wear anything but the lungooty and the women have one scanty cloth. The Todahs of the Neilgherries call the lungooty a kon, and the rug a pootcooly. Inhabiting the summit of the highest plateau in the country the latter is with them in constant use. It consists of a thick, coarse cotton cloth manufactured in the neighbouring plains; white in colour, but with one or two tinted stripes, generally red, woven into it at each end. It is usually purchased from the weavers who come to the hills from Shreemoogay in Coimbatore district, and costs about 4 rupees. The pootcooly is first hung over the left shoulder and then brought across the back and forward under the right arm; the point is thrown backwards over the left shoulder again, thus leaving the right arm free, and allowing the folds of the cloth to cover the lower part of the body down to the knees. On certain special occasions they wear a plain waist-cloth reaching to the knees called tarp, bought from the Shreemoogay merchants at a cost of one rupee; this is simply tucked round the waist, and crossed so as to cover the loins. When taking a part in funeral ceremonies they wear in addition to the tarp a more expensive waist-cloth called caung which they obtain from Calicut. The two dresses last named are probably traditional remains of costumes worn by them when they formed a part of the Dravidian community in the plains. The Todah women wear a tarp which extends upwards over the breast and also the pootcooly. The latter is somewhat differently draped to what it is among the men, being held in front by the hand which is thus never free, and reaching always to the feet. The hair of Todah men is cropped so as to resemble a natural skull-cap. Todah men wear gold and silver earrings, necklaces, and finger-rings. Todah women wear heavy brass armlets, generally two on one arm, silver bracelets, and silver finger-rings. The ornaments however of these, as of all other native women, are almost too numerous to mention. The Kotar of the Neilgherries dress much the same as Todahs, but though equally Canarese men they have different names for the articles of dress. Kotah male dancers who attend festivals have a peculiar dress which appears to be a medley of the ceremonial dress of the Dravidians and the ordinary Mahomedan dress, combining a long gown, trousers, and a turban. The Badagahs of the Neilgherries inhabit both the slopes and summits. They always wear a characteristic rug or cumbly, analogous to the Todah pootcooly, but they also wear the turban of the plains. (2) *Dravidians of the plains.*—The dress of the men generally consists of two pieces of white cloth, coarse or fine according to the means of the individual, each from two to ten yards in length, and from three quarters of a yard to a yard-and-a-half wide. Of these one is wrapped round the body, and if sufficiently long, one end is passed between the legs from behind, and arranged in folds in front. The second cloth is used chiefly out of doors as a spare cloth to throw over the shoulders or head. Men of the lowest castes commonly dispense with the cloth round the body, and wear in its place a small apron of white cloth supported by a string tied round the waist. Whilst at work many classes such as fishers, tree-climbers, and others, wear nothing but the lungooty, like the jungle tribes. Until the Mahomedan conquest, no clothes cut out and sewn together were worn by Tamulians, and by many such are still considered unlawful. Many however now wear made-up tunics, with the waist-cloth beneath. Others have even adopted the Mahomedan fashion of loose and tight drawers or trousers, the only distinction being that Tamulians fasten these on the right side, Mahomedans on the left. The materials used for made-up clothes are generally plain English or Native calico and muslin. The turban now in general use was originally borrowed from the Mahomedans. It is usually white and assumes different forms. Finger rings and earrings are the ornaments usually worn by men, but as a rule only the wealthy wear many jewels. Sandals or slippers are worn out of doors but never inside the house. The slippers are peaked and turned back at the toe, and down at the heel. Natives of all castes take off their shoes before receiving visitors or entering a house, but always retain the turban or head-dress. The state dress of southern rulers consists of the usual waist-cloth, a long white muslin robe edged with gold, and a head-dress of precious stones. The robe appears to be of Mahomedan origin. Officials when in office wear a somewhat similar robe of simpler make. The custom probably originated under Mahomedan rule. The dress of the women in its component parts closely resembles that of the men, but instead of wearing two pieces of cloth they wear only one, which varies in length from six to twenty yards, and in width from a yard to a yard-and-a-half. This cloth is usually coloured and embroidered, and is occasionally of silk. Widows wear a white cloth. The ordinary manner of wearing the cloth is as follows. One end having been gathered up into folds is held to the left side, and the other is then passed tightly several times round the body, from the waist to the middle of the leg or lower, and at last brought up over the right shoulder and down to the left side, where it is tucked in so as to fall in front in ample folds. This is the general arrangement, but women of different castes have slightly different methods of tying the cloth. By the usual mode of arrangement above described the bosom is usually completely covered. A half-jacket covering the upper part of the body is sometimes worn. In olden days this was considered indecent for respectable women. In some parts of the country, especially in the case of the lower-caste women on the West Coast, the women leave the upper part of the body completely uncovered. Until 1865 it was forbidden by law in Travancore for Shaunaur men and women to wear any clothing at all above the waist, and their jewels might not be of any costlier material than brass or beads. Innumerable kinds of ear-ornaments, head-plates and combs, tassels for the hair, bracelets, armlets, rings for fingers and toes, and nose-ornaments, are worn by all castes indifferently. The ornaments on the feet are invariably of silver, gold being appropriated to members of royal families. The most important ornament worn by Hindoo women is the 'talee,' which corresponds to the wedding-ring among Europeans. It consists of one or more small gold jewels and beads strung on a twisted thread, and is tied on the bride's neck by the bridegroom or one of his relatives at the time of the wedding. It is never removed except in case of widowhood, when it is torn off and not again resumed. (3) *Brahmins.*—The ordinary costume of the Brahmins is much the same as that of the other castes. It consists of the same two pieces of cloth, which however are arranged somewhat differently. The waist-cloth is arranged so as to form five folds (called 'Panchacatcha') both in front and behind, and the second

hair is left uncut called the coodoomy; to be removed only on the occasion of the death of a father, and then only by certain classes. The coodoomy is usually worn at the back of the head, but the inhabitants of the West Coast have it at the front of the head over the forehead, where it is tied up in a loose knot. As for the Tamul woman, she has long, black, and luxuriant hair, which she ties up in a knot at the back, or in the case of some castes at the right side of the head [38]. On the forehead of the Tamulian who professes Hindooism are horizontal or upright lines drawn with sacred ashes, and renewed every morning. In very many cases the plain white spot replaces these. They are as already mentioned the sectarial marks denoting the particular deity worshipped. They are repeated on the shoulders and breasts. A few persons who aim at special purity rub the sacred ashes over the whole of the upper part of the body. Around the necks of Brahmins and others specially devoted hangs a necklace or rosary, made of the nuts of certain trees strung together. These are used for reckoning the repetitions of appointed prayers. The mark of Brahminical dignity is a cord composed of three treble threads of cotton, worn across the breast, running over the left shoulder and under the right arm. It is renewed from time to time as it wears out. This cord, or poonool, is assumed also by certain artizans and has been conceded to the male members of reigning families. Ornaments are worn in profusion by both men and women among the Tamulians. The nose and ear jewels are prominent in the case of the latter. In the oldest Tamulian fashion the women distended the lobe of the ear with ear ornaments of surprising size and weight. Necklaces of gold, silver, brass, or beads are worn by all women except widows. The talee, that is to say the marriage neck ornament, corresponds to the wedding ring amongst Europeans. It is composed of one or more small gold jewels and beads strung on a twisted thread. The talee is tied on the bride's neck by the bridegroom at the

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cloth is usually worn over the right shoulder instead of over the left as among the lower castes; this latter distinction however seems to be only a local and perhaps accidental one. Pious Brahmins generally wear round the neck a necklace or rosary composed of the hard round nuts of certain trees, and used in reciting the appointed prayers. In common with the other twice-born castes, the Brahmins wear the sacred thread, with which they are invested some time between the ages of eight and fifteen. This cord consists of three thick twists of cotton, each of them formed of several smaller threads. The three threads are not twisted together but separate from one another, and hang from the left shoulder across to the right side. When a Brahmin marries, the number of threads is increased from three to nine. Brahmin women wear the cloth wound round the waist in the ordinary manner, but with fivefolds in front and behind like the men. Sometimes the end which hangs down behind is brought back between the legs and fastened in front, leaving the legs uncovered behind. Brahmin women are not allowed to wear a petticoat. The ornaments worn by Brahmin women differ in some respects from those worn by other castes, principally in being more costly. An ornament peculiar to this caste is the bracelet with diamond pendants. Brahmin women also decorate themselves by staining the face and other uncovered parts of the body with a yellow solution of saffron and water, and by painting with black the border of the eyelashes. (4) *Mahomedans.*—The Mahomedans wear dresses suited to occasions which may be divided into first state or durbar, secondly ordinary, and thirdly home. "a." The state dress consists of a turban on the head with a cap within, either conical-shaped or flat; a flowing robe gathered together into folds just below the chest and the folds sewn together, worn over an under-coat extending a little lower down the hip; a loose and open garment reaching the ankles and buttoned only at the throat is also allowed for Hajees or pilgrims and is worn over a waist-coat encircling a long coat, which again has a small jacket under it next to the skin; of a scarf or belt round the waist; of a pair of drawers; of a napkin; and of shoes worn over stockings. This dress is generally made of the richest materials according to means. "b." The ordinary costume differs from the preceding in that it has no scarf or belt round the waist. The flowing robe is replaced by an ordinary garment of various patterns covering the body from neck to lower down the knees, and the feet are naked without stockings. "c." The home dress consists of a simple cap on the head, of a jacket for the body, of a pair of drawers, a handkerchief and shoes, which are freely used in such parts of the house as are not covered with mats or carpets and are taken off only when entering a Mahomedan burial-ground, a mosque, and other places of sanctity, such as tombs, &c. The dress of the females may also be divided according to occasions. The state dress or dress used on occasions of festivities or ceremonies consists of a full robe as in the case of men or a scarf fastened at the waist and passing once round the body and over the head; of a boddice, a petticoat, bangles and a napkin. These are made of the most expensive materials which the wearer can afford to buy. At home, the napkins are dispensed with and the dress is not so expensive. Shoes are used by females on all occasions. Sandals are used only during the rainy season and males are prohibited from wearing ornaments of any kind. Finger rings are generally used. Mahomedan women wear a large number of various kinds of jewels on the head, neck, arms, fingers, waist, feet, ankles, toes, ears and noses.

[38] SKETCH ACCOUNT OF THE MODE OF WEARING THE HAIR AMONG THE DRAVIDIANS.—The tuft of hair which Hindoos are accustomed to leave when shaving their heads is called in Sanscrit the shikhah, in Tamul the coodoomy. There are many references in Menoo and other ancient Hindoo books to the practice of tonsure; understanding thereby either tonsure leaving a tuft, which is the mode in ordinary use, or tonsure including the shaving off of the tuft, which is the mode prescribed for ceremonial defilements. The wearing of the hair long, tied up in a knot at the back of the head, nearly after the manner in which women usually wear their hair, was the ancient natural usage of the Tamulians, and this usage, though to a great degree superseded by the coodoomy, has not yet disappeared. The Brahmins, who settled in Southern India, brought with them from the north the Aryan mode of wearing the hair. The use of the coodoomy may be said now to indicate respectability, and has by this time reached the middle and lower classes, but it has not yet by any means become universal amongst them. The great majority of the Shannaur wear their hair long. There is a caste of bankers in Tinnevelly and Madura, called Nauttoocottay Chetties, who wear their hair in neither of the modes referred to, but shave the head completely after the manner of the Mahomedans. When a Hindoo loses his father or mother and officiates as chief mourner at their funeral, he sometimes shaves off not his coodoomy only, but also his moustache, as a sign of mourning, or rather as a sign of the ceremonial impurity contracted by a near relation's death. However this is not a Dravidian custom.

time of the betrothal, and is worn as an auspicious ornament. It is preserved with care, and not removed except in case of widowhood, when it is torn off and not again resumed. To wear gold on the ankle is a sign of royalty. Arms are rarely carried now by any caste, but their vestiges remain in several ceremonial costumes [39]. The Nayars wear on many occasions a long and broad-pointed sword. The habitations of the people are well designed to resist the tropical rays, and architecture has learnt much from the elegance of their sloping roofs and spacious vestibules. It is a singular error to suppose that the Tamulian house lacks comfort. The flat-terraced house of the Deccan is little used in the lower plains [40]. The keen intelligence of the Brahmins has been developed on the simplest dietary, and they have taught a similar regimen to the upper classes of the Dravidians. But among the latter meat is more often consumed than is generally supposed, and a vow to abstain from flesh is considered meritorious. Among those who are regulated by the Hindoo system, the rules of caste forbid that persons should partake of food in company with those of lower caste, or which has been prepared

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[39] Sketch History of the Arms of Southern India.—The rudest type of South Indian arms may possibly be referred back to a time when a race earlier than the Dravidian race was spread over the mainland and islands. The Australian boomerang is still used in the Poodoocottah State in Trichinopoly district. This arm had its origin in a wooden club, the discovery of its particular curve being no doubt accidental. The Tamul name is வளைதடி or bent stick. However the Sanscrit writers also have a name for such an instrument, which they call astra or "scatterer." The arms still used by the hill-tribes may be taken as types of ancient war weapons. The Khonds use the sling, the bow, and an axe with a curiously-curved blade and a light handle strengthened by brassplate and wire. The Koles use a short axe and a bow. The Coorg carries a short dagger in his waist and a strong knife behind, the handle being stuck in his girdle, while the blade lies naked on his back. These knives are curved, so as to be also used as bill-hooks for clearing jungle. Gaspar Correa, who visited India in 1514, describes a Nayar as armed with 'a thin round shield' and 'a naked sword with an iron hilt; the sword was 27 inches long and broad at the point.' Vasco da Gama describes similar swords. These the Nayars still wear. Another type of sword is the gauntlet hilted with rapier-blade, formerly used by the Mahrattas. Indians have much respect for the sword, and to this day southern tribes administer an oath on it. Most of the forms of South Indian swords have been borrowed from conquering races, but the metal is indigenous, as South Indian steel has been famous from a very early period. They may be classed according to the form of the blade into scimitars, sabres, rapiers, and cut-and-thrusts. There are also two-handed swords and sacrificial swords; the latter being heavy weapons with two-handed hilts and curved, thick-backed, knife-like blades. A very extraordinary weapon has been the steel lasso, used to decapitate a flying enemy. The shape of the axe was originally borrowed from the tooth of some carnivorous animal, such as the tiger. Shields were usually made of buffalo or elephant skin, strengthened with steel. The most recent question is that of the introduction of fire-arms. This is sometimes ascribed to a remote period, but the allusions of ancient writers, on which the theory is based, refer rather to missiles containing a composition like Greek fire. The exact composition of that substance is not known, but it was doubtless petroleum or similar inflammable mineral oil. Ctesias (400 B.C.) mentions an oil used by the Indians, which, when set on fire, could only be extinguished by stifling it with mud. Ælien quotes Ctesias's account with additions. Philostratus states that this oil is got from a worm, seven cubits long, by which the crocodile is perhaps meant. The missiles containing the composition were often discharged through tubes. Negative evidence as regards the use of guns in ancient India comes from the fact that they do not appear in any of the Saunchy or Amravatty carvings. The first certain mention of guns in Southern India is in 1368 A.D., in which year the Bahminy Sultan captured 300 gun-carriages from the Rajah of Vijianugger. Shells were in use towards the end of the fifteenth century and rockets were known at a remoter date. Small guns were first used in action by Baber in the north at the battle of Paniput (A.D. 1526). They consisted at first of a simple metal tube attached to a straight piece of wood, with a touch-hole to which fire was applied to ignite the charge. An advance on this was the matchlock, still used by jungle-tribes. The firelock with flint and steel was invented by the French in 1635, and introduced into India subsequent to that date. Indian cannon were originally made of bars of iron hooped together but afterwards brass and bronze were also used, and the guns were cast. Acbar was the first of the Moghul emperors to pay attention to the construction and equipment of artillery. Aurungzeeb followed, and his armoury contained 50 or 60 field-guns of bronze, 70 cannon, and 200 or 300 light camel guns. Hyder and Tippoo placed great reliance on this branch of their army, and employed French and English artizans to superintend the manufacture of their ordnance. Gunpowder was known in Southern India long before it was applied to fire-arms. The principal component parts, viz., saltpetre and sulphur, are found here in large quantities. Fireworks also have always been a favourite amusement in the country, and the natives have attained great skill in their manufacture.

[40] Sketch Account of the Habitations of the South Indian Population.—The Tamulian's house is comfortable but simple. In many of the old towns there is not a single two-storied house, and those of one story are as low as possible. There is a tradition that the dwellings of the deities should rise higher than those of men. The house of a person of the middle classes is from 30 to 40 feet square. It has an open verandah towards the street, with a door in the middle. The house is divided into several small rooms. One is used by the females of the family; another is more public; and a third is the strong-room, carefully fitted with locks and bars, and upper ceiling, so as to form a secure repository for the cloths, jewels, weapons, coins, brass vessels, and other household valuables. Windows are either wanting, or are exceedingly small, and are fitted with wooden bars or carved work. The interior is often dark. The apartments within are built round an open court, paved but not roofed. In the middle of this there is a square hollow, where the rain water collects and is drained off. Into the open court the doors of the inner rooms open. In large houses there is often a second smaller court and a small garden. A well is dug inside the courtyard for convenience of access. In the more respectable native houses there are a great many separate buildings; some of them carefully secluded for the use of the various members of the family and their wives and children, with store-rooms, cooking-houses, and often a small domestic temple in one corner of the open courtyard. Tables and chairs are not to be found in a Tamulian house, and ordinarily a rush mat serves as bed, chair and table. A few earthen and metal pots, and a box for keeping cloths and jewels, form the whole of the house furniture. Latterly rude bedsteads have been introduced among the better classes. The walls of the better class of houses are built of clay bricks dried in the sun or kiln burnt, or of a hard clayey material called laterite, dug in abundance out of the hill-sides in almost every locality. It is cut into squares like bricks, and hardens by exposure to the air. Choonam, or lime for plastering the walls, is procured by burning bivalve shells, found in abundance on the sea-shore and in the backwaters. This is a perfect white and when properly applied and polished looks like fine white marble. The ceilings, rafters, and beams are of teak, jack, or palmyra wood and the roof is covered with small tiles of burnt clay. The dwellings of the poorest natives consist of four mud walls, with wooden rafters, and grass or palm-leaf thatch. Many huts are constructed wholly from the leaf and stems of the palmyra or cocoanut palms.

by such. The profession of a cook is as honourable in Southern India as that of a teacher[41].

64. All the ordinary occupations essential to civilized life are carried on by the Tamulian; often in a style very primitive, and different from that of European

[41] SKETCH ACCOUNT OF THE DIETARY OF THE SOUTH INDIAN POPULATION.—*Introduction.*—The earlier impressions obtained by travellers with regard to the manners and customs of this country arose from intercourse with the people living on the sea-board, and as rice is one of the staple products and the chief food of the people on the alluvial plains near the coasts, it was erroneously assumed that the whole population of the country were rice-eaters. The sea-board of the Madras Presidency is generally rice-producing, but in the interior other cereals which require less moisture, and which can be grown without artificial irrigation, take the principal place in the dietary. In most of the districts raggy (Eleusine corocana) is the grain chiefly eaten by labouring men. In nutritive power this is equal, if not superior, to wheat, the staple of northern countries; and hence arises its general use by those who have to endure bodily exertion. About one-fifth of the entire area of cultivated land in the districts is devoted to the production of rice and sugar, the remaining four-fifths being used for the cultivation of the dry cereals, dholl, gram, cotton, oil-seeds, &c. (2) *Cereals.*—As regards the labouring population, the great bulk of their food is furnished by the staple cereal of the district in which they live. The following are the chief of the grain-yielding grasses used as food, but there are some other species of millet grown, such as Panicum miliare and P. frumentaceum:—

English names.	Botanical names.	Tamul names.
Rice (several sp.)	Oryza sativa	Arisy.
Raggy	Eleusine corocana ...	Raggy.
Great millet ...	Sorghum vulgare ...	Cholum.
Spiked millet ...	Penicillaria spicata ...	Cumboo.
Italian millet ...	Panicum Italicum ...	Tinay.
Little millet ...	Panicum miliaceum ...	Varagoo.
Wheat	Triticum æstivum ...	Cothoomay.
Barley	Hordeum hexastichon ...	Varcothoomay.
Indian corn ...	Zea mays	Makkacholum.

(3) *Pulses.*—Next in importance to the cereals, are plants of the order Leguminosæ; in fact, those of the population who eat little animal food are compelled to seek in these plants the nitrogenous material required to renew waste of tissue. The pulses, the peas, the beans, gram, and dholl contain a large percentage (namely from 25 to 30 per cent.) of vegetable albumen, or casein, besides a proportion of inorganic constituents. The principal pulses in general use are included in the following list:—

English names.	Botanical names.	Tamul names.
Dholl	Cajanus Indicus ...	Tovray paroop.
Green gram ...	Phaseolus radiatus ...	Putchay payar.
Black gram ...	Phaseolus mungo ...	Oolandoo.
Cooltee ...	Dolichos uniflorus ...	Colloo.
Lentil	Ervum lens	Mysore paroop.
Bengal gram ...	Cicer arietinum ...	Cadalay.
Common pea ...	Pisum sativum ...	Puttauny.

These substances enter largely into the composition of vegetable curries. They are also made into thin cakes with pepper and assafœtida, which are fried in butter and thus eaten. Those who do not use animal food consume from two to four ounces of dholl, or some other of the lentil tribe per diem in addition to the ordinary amount of cereal grain. (4) *Animal food.*—The animal foods used in Southern India do not differ materially from those of other countries. Of these, butter, butter-milk, and fresh curds are the most universally used by all classes. The wealthier the family, the more ghee (clarified butter) and butter-milk is generally consumed. The religion of the Hindoos prohibits their eating beef, and the Mussalmans are equally forbidden the use of pork; but with these exceptions the flesh of domesticated animals and of the wild ruminants of the forest is generally eaten. The flesh of domesticated animals in Southern India is remarkably lean, and deficient in succulent juices. This is because cattle are not specially fattened for consumption. The lower castes and Pariahs even eat horse-flesh, as well as the bodies of cattle which die of disease. Along the sea-board, fish of all kinds is used as food, and salted fish finds its way into the interior, being an article of trade in most bazaars. (5) *Fruits and vegetables.*—Succulent vegetables and fruits used as food are numerous. Green vegetables are chiefly used in curries. The ripe fruits are eaten raw in their season. Lime juice enters into the composition of nearly all Indian dishes, and the preservative action of this vegetable acid on the fluids of the body is probably very important, where there is a consumption of large quantities of cereal grain. The general use of the fruit of the tamarind in curries is an analogous fact. Many of the Indian fruits are in themselves highly nutritious. The plantain, jackfruit, mango, custard apple, pine, and melon are instances. The fruit of the custard apple (Anona squamosa) which grows wild has in times of scarcity been the means of saving thousands of the population from starvation. The cocoanut, the palmyra nut, date, &c., contribute in an important degree to the food of the population, wherever they are indigenous. (6) *Sugars and starches.*—Sugar is made not only from the cane, but from the inspissated juices of different varieties of palm. Sugarcane, in the districts where it grows, is eaten largely in a raw state. In the south of Tinnevelly, the jaggery, or impure sugar obtained by boiling down the toddy of the palmyra tree, forms a very important item of the staple food. The higher classes both of Hindoos and Mahomedans eat largely of sweetmeats; many of them very curiously composed, but their chief bases are sugar, butter, almonds, and flour. Arrowroot abounds on the Western Coast of the Presidency. Sago and tapioca are also used to some extent. There has been an extended culture of the potato on the Neilgherry plateau. This is consumed now to a considerable extent by the natives on the hills, and forms an article of considerable traffic with the low country. (7) *Spices and condiments.*—Chillies, black pepper, coriander, cardamoms, turmeric, ginger, garlic, and onions are used to an extraordinary extent. Curry and rice is one of the characteristic dishes. Curry is a compound of spices; such as mustard, pepper, turmeric, ginger, coriander seed, tamarinds, onions, cocoanut juice, &c., in varying proportions,

workmen, but still practically efficient[42]. The occupations of the different castes can be seen from Vol. II, App. XXXII. The products of native handicrafts are described at page 359 of this volume. Prosperous persons lend out their money at heavy rates of interest. Some however hoard it concealed beneath the floor of the house or elsewhere. Many expend their savings on gold and silver ornaments, which, being of small bulk, can be easily guarded besides being readily convertible. The goldsmiths are skilful workmen. Weavers do not as a rule attempt the manufacture of any but plain cotton cloth. But in special localities there are also silk-weavers. The carpenter's chief tool is the rude chisel of various sizes and breadths. With this he cuts through timber, instead of using the saw. There is some waste of material. Planks are planed with the broader chisels. Narrow tools are used for piercing holes, into which pins of palm wood, instead of iron nails, are driven to fasten portions of timber together. Wood-carvings are astonishingly correct in their execution, as well as elaborate and curious. In the erection of temples and wayside rest-houses, and for images and decorative carvings, stone is largely used. It is expensive to work, but it is imperishable. Noble and imposing works of art exist in some of the ancient temples, made of this

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according to the flavour required. The ingredients being ground with a stone roller, on a flat smooth stone, are boiled and added to the meat, fish, or vegetable which is to be curried. The rice is thoroughly well boiled in water. (8) *Drinks.*—The most common drink of the people everywhere is plain water. The water in which grain has been boiled is also frequently drunk with meals, either fresh, or after standing for some hours and becoming acid by fermentation. "Pepper water," a kind of soup without meat, is another very common drink with meals. An infusion of ginger is not unfrequently used on the Western Coast. Of late years, tea and coffee have been more largely consumed by the native population. In the districts where coffee is grown, there is a very large local consumption of the berry. Native road-side coffee-shops are often met with. (9) *Fermented and distilled liquors.*—With the wide-spread distribution of toddy-yielding palms, it follows necessarily that the use of that beverage in a simple and fermented condition will be prevalent. Many drink the fresh toddy; others use it as fermentation is beginning, or again when it has attained considerable intoxicating power. Those whose means permit it, drink country spirit (arrack), distilled from jaggery or toddy. The natives of hilly districts in the interior are more addicted to spirit-drinking than the people of the plains. (10) *Preparation of food.*—The prior processes which in Europe fall to industries are performed in the Hindoo household. The mortar is generally of stone; but often a log of wood, the lower part shaped like an hour-glass stand, while in the upper is a conical cavity of the contents of about two gallons. The pestle is of hard wood, about four feet long and two inches in diameter, with the ends ferruled with iron, to prevent splitting or wearing. It is usual for two women to work together; the pestle is then raised perpendicularly by the right hand of one, and as it falls is caught by the right hand of the other. When tired with the right hands, they use the left. A song is chanted during the work. The stone mill, consisting of two flat stones worked by one or two women, is in use in every house. (11) *Meals.*—Only two meals are, as a rule, taken daily. One meal is invariably taken at night, when the day's work is over. The hours of the other meals or meal depend upon the employment and means of each individual. Those who are employed as domestics by Europeans take generally two meals during the day-time; a light one in the morning, and a second and more substantial one at noon. The labouring classes and those whose occupations necessitate their leaving home early, take only one meal before the night meal, and that early in the morning. Officials and merchants, and people of the middle classes generally do the same; but the morning meal is considerably later, usually at noon. This in fact is the ordinary habit of the country, and appears to be the one most suitable to tropical residence. When eating, the natives sit cross-legged upon the ground. Neither plates, spoons, nor forks are used. A plantain leaf holds the rice. For liquids, the hard leaves of the jack tree are fastened at one side with a thorn, so as to form a rude kind of spoon. These leaves are thrown away after being once used. In Southern India, men and women never eat together. After the males of the family have finished their repast, the women, who have meanwhile been attending upon them, retire to their own meals. It is considered unbecoming for a female, unless a child, to be seen eating by any male member of the family. Brahmin widows take only one meal a day, at noon.

[42] SKETCH ACCOUNT OF THE OCCUPATIONS OF THE SOUTH INDIAN POPULATION.—The occupations in an agricultural village are a key to the whole of the native life. The smallest village has its head magistrate or moonsif who represents the supreme local authority. The other village officials are the monigar, whose duty it is to collect and remit the Government dues, and the kanakan, who keeps the accounts and the registers of the different holdings. The monigar and moonsif are in very many cases the same person. In most districts the posts of these officials are hereditary. Not far from the village, there is a suburb, called the chery. This is inhabited by Pariahs, who cultivate the fields of the other inhabitants. Among them is a taliyary or headman of the Pariahs, whose duty it is to guard the whole village, and to catch thieves and send them in custody to the police, for which latter purpose he carries in many villages a spear. His assistant is the vettiyaun, who also attends the burial of dead cattle, and performs other menial occupations. The posts of these also are mostly hereditary, and are paid by the grant of a piece of land. In larger villages and towns, each division has its moonsif, monigar, kanakan, taliyary, and vettiyaun. A more detailed description of these five principal officials will be found later, on page 154. The artificers form properly a part of the hereditary village establishment, though they are not recognized as such for the purposes of Government. The first of these is the carpenter. He works sitting on the ground, with the wood that is being operated upon held between his feet; and his principal tools are the hammer and chisel. He occasionally uses a saw, the teeth of which are set in a direction opposite to the European fashion, and a plane. A village carpenter will with these tools make any ordinary piece of furniture, including the most skilful wood-carving. The lathe is a modern introduction. The smith also sits on the ground and works in that position. By his side sits the bellows-blower with a goat skin in each hand. The smithy and its tools are easily transported, and the furnace is built in a few minutes. The potter shapes round pots, large and small, whilst standing, by turning the wheel with a bamboo and shaping the clay as it turns. The barber sits and shaves the head and face of the customer sitting opposite to him. The washerman fetches linen from house to house, and carries it to the river or the tank, where he beats it upon a stone. If the river is far, donkeys are employed as beasts of burden. The calendar writers and astrologers are always Brahmins, and their science is a part of religion. Other trades are those of the goldsmiths, oilmongers, confectioners and bazaarmen. The goldsmiths, particularly those from Trichinopoly, are capable of executing the finest work. The oilmongers yoke one or two oxen to a long beam turning the grinder, which fits into a hollow wooden mortar. The oil is thus pressed, and the operation produces loud tones which are heard for a long distance. The confectioners exhibit their wares by the roadside. The bazaarmen sell everything that is required for daily life. In their leisure these are fond of reading.

material. The iron industry is very important[43]. Potters are an essential part of every village community. They produce the common red chatties and other vessels of clay used for drinking, eating, cooking, storing oil, and many similar purposes. As these are exceedingly fragile, and are besides frequently dispensed with and thrown away, the household stock being renewed on account of defilement, immense quantities are used throughout the country. They are moulded by hand on a wheel, and burnt in a small furnace. The musicians belong as a rule to the lowest classes, but occasionally a professor of the higher art is found among caste Hindoos[44]. A knowledge of reading and writing is very generally diffused; but those who cannot write use marks for their sign manual, of which there are some peculiarities. Thus men use a horizontal line, women a circle. Men on the West Coast sign with three vertical lines. Christians sign with a cross. The traders sometimes sign with a trade-mark; as a dagger for a soldier, and a hammer for a goldsmith.

65. Mention has already been made of the formation of Tamul geographical names. Although it is impossible to discover the meaning of every local name at present in use, yet the greater part of such names have a definite signification.

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[43] SKETCH ACCOUNT OF THE IRON AND STEEL INDUSTRY IN SOUTHERN INDIA.—The iron manufactures of the Tamulians are both important and interesting. The mountains are rich in iron ore, and no trouble or skill is required to produce it. The ore is merely picked up, broken into pieces, washed clean from the earth, and then placed in the furnace. The furnace itself is neither a costly nor permanent structure; it consists of a few walls of plaster, which two men can build without expense in one or two days, and it is erected at the place where the ore has been collected. The bellows, of which there are two, consist each of an entire goat skin. A man sits on the ground, takes one in each hand and moves them up and down quickly, so that an equal and powerful blast is effected. The earthen furnace is filled at the bottom with charcoal, and then ore moistened with water is placed on the top of it. The same is done several times in layers. The blowing up of the fire with the goat skins continues for several hours. After this period the iron is taken out with tongs, beaten with hammers so as to free it from the dross, and given to the blacksmith. The latter throws the iron into chauldrons full of charcoal, and thence after a while taking it out hammers it into bars twelve inches long and one and a half broad. The iron is thus ready for manufacture. Such iron is very brittle, and the color is red. But this unpretending material produces the Indian steel, celebrated already in the earliest ages, and from which the swords of Damascus were manufactured. The preparation of the steel is as simple as that of the iron. Small crucibles of mud mixed with husks of rice are built on the spot. Into these crucibles is thrown a quantity of broken iron with about a quarter of the weight of dry wood of the wild cinnamon bush (Cassia auriculata) cut into small pieces, and after adding a few leaves of celandine (Asclepia gigantia) the whole is covered up. An earthen cover is put over the mouth of the crucible and smeared with mud so as to render the whole air-tight. A number of such crucibles filled in this way are then placed in a furnace and covered with charcoal. A fire is lit and blown with goat skins for two or three hours. The operators then wait until the whole has cooled, after which they proceed to extract the steel from the crucibles. By the above process, all the unnecessary particles of carbon, which are the cause of brittleness in the iron, are removed and the finest steel is obtained. It is impossible to ascertain how the natives of India have arrived at this simple but profitable way of making steel; but it seems certain that in former times they were the only persons who understood its preparation and the oldest Persian poems speak in praise of Indian steel. The following is the detailed recipe for making native steel:— "a." To work the iron—Take of the ore of iron, called canacull; put it by baskets into the furnace, made in the manner of the choonam kilns; cover this with the same quantity of charcoal; in this manner put in three layers of each, ore and charcoal alternately. Then work the furnace with a large bellows for six hours; when the stone or ore will be found melted into one mass; which should be quickly beat out into bars before it cools, employing four or five men with heavy hammers for this purpose. "b." To make steel of the iron—Take the bars of iron, beat them into pieces of eight inches long, and four inches in circumference; cut them into two equal parts. Then take a sufficient quantity of red clay, and put it in water; strain it off by a channel, and conduct it into a hollow place when the water is found to become clear; drawing off the water, take the pure clay, and an equal proportion of black ashes of paddy husk, and employ two men, one to pound them in a stone mortar in the manner in which paper is beat, and the other to supply the mortar with this mixture; then of this impalpable powder make crucibles of a span in length and eight inches in circumference, of the size or shape of the plantain-flower or guava-fruit; and dry it gradually by exposure, at first under the shade, and then to the sun, till it is properly dried. Put into each of these crucibles when perfectly dry, one of the above-mentioned half pieces of iron; and cover it with a handful of the creeper (with its leaves) called in Canarese, ooggانabully, or in Teloogoo, tungaid; and fill up the vacancies with paddy husk; cover the whole with some of the purified earth, which dry well by exposing it to the fire. Of these crucibles, to the number of 54 are put into the furnace. "c." To make the furnace—Make the furnace one cubit square, and three in height; make a hole from behind through the wall into the furnace, in which two large bellows are to be fixed; spread some grass on the bottom of the furnace; on this, lay charcoal, and over it, a clay pipe, in which the mouths of the bellows are inserted; then arrange the 54 crucibles in the furnace one over another; and lay in plenty of charcoal, as much as is necessary. The bellows are to be well worked for nine hours; when it is found from the furnace that the red flames turn white (or it is come to a white heat), it may be supposed that it is sufficiently done; then sprinkle a little water over the furnace, and take out the crucibles; cover them with sand, and cool them with water; when they are sufficiently cool, break them with a small hammer, and there will be 20 or 30 prepared steel masses out of the 54. This is the finest and best kind of steel used in all works. If half-prepared steel is put again into the furnace in the same manner, they will be well done.

[44] SKETCH ACCOUNT OF SOUTH INDIAN MUSIC.—Sanscrit literature attaches a high value to the practice of music. In the epic mythology the Gandharvas appear as musicians residing in Indra's heaven. In the Mritchacatica, Rebhila is praised as a renowned singer. The Sanscrit writers have four different general systems. The first system is ascribed for its authorship to Devarshy Naurada, who in epic poetry appears as well skilled in history, and passes between the gods and men the reciter of tales and history. Eeshwara or Shiva received this system from him. The author of the second system is Bharata, the inventor of the dramatic art. The author of the third is the divine ape Hanooman. The author of the fourth is Capila, the founder of the Saunkhya philosophy. The third of these is the most prevalent and popular in Southern India, and has perhaps borrowed some indigenous features. The music of the educated Tamulian contains the European scale of seven tones, and denotes them by the letters sa, ri, ga, ma, pa, dha, ni. These stand for the terms Shadja, Rishabha, Gaundhaura, Madhyama, Panchama, Dheivata, and Nishauda. The whole form the Praucrita-swaragrauma or natural scale. The distinction is observed between whole tones or swaras, and half tones or ardhaswaras. There are also twenty-two quarter tones in each octave, called shrooties. Sa to ri is 4 shrooties, ri to ga is 3, ga to ma is 2, ma to pa is 4, pa to dha is 4, dha to ni is 3, ni to sa again of the next heptachord is 2. The four shrooties correspond nominally to the European major tone, and the three shrooties to the European minor tone; two shrooties make the diatonic semitone. By this calculation the shrooties will not always be exactly equal; but it is probable that as there is

They are generally compound words, and may readily be resolved into their elements. In like manner proper names of persons have their several significations. The composition of a Hindoo name may be seen from Vol. II, App. XXXIV. The old Dravidian names are single names only. They are often taken from demons, as Maudan, Shauttan, &c. Other names arise from the personal appearance of those who bear them. Thus Carooppan, 'black one;' Vellaiyan, 'white one;' Yilaiyaun, 'tender one;' Cotchoocootty, 'small one.' The proper name of the upper classes is mostly that of a Hindoo god or goddess; as Narayana, Rama, Madhwa, Permaul, Parvaty, Lutchmee. Sometimes it is also a poetical compound. Thus Masilaumany, 'pearl without flaw;' Vedamaunicam, 'gem of scripture;' Cooroopautham, 'feet of the teacher;' Caroottadaiyaun, 'possessor of judgment;' Nyaunacan, 'eye of wisdom;' Nyaunamoottoo, 'pearl of wisdom;' Shebattiyaunam 'praying one;' Devadausan, 'servant of deity;' Satyayee, 'true one.' To these they prefix the village name, and they affix an honorific or caste name. Women have only one name, to which in very superior families is added a title [45]. The question of Mahomedan names is quite special, and they are in nearly all cases foreign to the country[46].

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no regulating harmony, the enharmonic player follows the shrooty and not the tone, thus making the shrooties equal. The native system admits moreover six raugas or modes, and the musical treatises contain minute directions as to the employment of these in the six seasons into which the year is divided. The six raugas are godlike beings, whose consorts are rauginees eight in number. These have produced forty-eight sons called raugapootras, by whom the various mixtures of the chief modes are denoted. In some manuscripts are found portraits of the two and sixty male and female divinities. The Tamuls speak generally of only thirty-two modes. These are but the analogue of the old European church modes, which placed the tones and semitones in a different order from that now familiar, and signalized them by beginning and ending on this or that note marking the mode. The use of these modes gives the impression that the performer is not adhering to any definite succession of tones and semitones, but this is only due to want of familiarity with the style. A good performer makes to predominate the first note of the mode; called graha when it begins, and nyausa when it ends the melody. There is also a dominant in each mode, not necessarily the fifth, called amsha. The idea that the modern major and minor diatonic scales are the only natural scales appears to be derived from the complex considerations connected with harmony. The natives of India have no harmony, other than the use of the drone given by the octave below, and sometimes the fifth above that added. Besides the instruments of percussion the indigenous instruments are a species of bassoon, a rough cow-horn, and a kind of clarionet. The veenay, an elegant wired or stringed instrument, is an importation from the north; and was mythologically the invention of Naurada the son of Brahma. It has usually seven wires raised upon nineteen frets. At one end, and often at both ends, is a large gourd which gives resonance. The tone is however weak, and it is only used with a light accompaniment on some instrument of percussion. The manual skill displayed by performers on this instrument is astonishing. The notation known in Southern India indicates the melody roughly, but not with all its details; and instrumental music is usually learnt by rote or ear. The notation consists merely in the enumeration without stave of the syllables mentioned above. At the beginning of the melody is indicated the rauga, which shows what notes are to be flattened or sharpened; and the rauga is never changed during the performance of the melody. There is no sign to indicate differences of octave, or accidental flattenings or sharpenings. The melody is barred. Within each bar the position of the syllables alone indicates their relative values. It will be seen that this is a rude notation, and advanced musicians do not require it. A more accurate investigation of the musical writings of the Hindoos is desirable, especially as they throw much light on the representation of the native drama. A Teloogoo collection of tunes, called Sangeeta Ratnaucaram, was printed at Madras by Vengopaul Naiackan in 1862. There is a similar manuscript in Canarese entitled Sangeeta Ratnamaula.

[45] Sketch Account of Modes of Address in the Dravidian Languages.—A difficulty in the Dravidian languages consists in the correct use of the honorific forms of address. The pronouns and verbs which are used, reveal the relative rank of the person addressed. If he is evidently the inferior or junior, (ní pógiṛáy) is said in Tamul 'thou goest,' and the use of the honorific in such circumstances would be highly inappropriate and even ridiculous. If he is the equal in rank, the form is (nír pógiṛír), meaning 'thou, sir, goest.' If he is a superior, (níngaḷ pógiṛírgaḷ) is used, 'ye go;' or again (tángaḷ pógiṛírgaḷ) which means 'themselves go,' this latter being the universal form of address from natives to European gentlemen. If the person addressed is of higher rank still, as for example a reigning king, the most respectful form is thus, 'is the Maharajah themselves going?' But the customary native form of address in this case consists of the use of such terms as 'golden god,' 'sacred mind,' &c. Should the person addressed be an entire stranger, and his rank not be apparent from his dress, pronunciation, or attendants, the pronoun 'it' may be used without offence; (engé pógiṛathu) 'where does it go?' afterwards rising to (nír) or (níngaḷ) if necessary. There are yet other forms, such as (pógiṛathuṇḍu) 'there is a going;' which are occasionally used without any pronoun, or intimation of either respect or disrespect; but this style is rather troublesome. It is by no means polite or respectful to call a person by his proper name in the Dravidian languages. He should rather be called by his office, caste, or title. In the superscription on a cover, the letters M.R.Ry. are prefixed to all names of respectable Hindoos; accompanied at the end by the plain plural form of the name, or if with more respect by the plural pronoun (avargaḷ). At the head of a letter are put similar forms in the dative case. The use of the English prefix "Mr." is not at all usual in ordinary native society. The titles of Bahaudur and Esquire have been given to Hindoos by the Mahomedan and English Governments, especially the latter; but they are not employed by the natives themselves. The ordinary native titles of courtesy will be found in Vol. II, App. XXXIV. It has already been mentioned that there are in Tamul, as in Malagasy and the Polynesian languages, two distinct forms of the personal pronoun 'we' (nám), including, and (nángaḷ), excluding, the party addressed; as, for example, 'We (nám) all are men,' or 'we (nángaḷ) will not go with you.' Persons of rank always speak of themselves in the plural number, which however is usually by an anomaly the first of these forms (nám,) and not the second.

[46] Sketch Account of the Composition of Mahomedan Proper Names.—(1) *Introduction.*—The system of Mahomedan proper names if viewed exhaustively is of a complicated nature. The different parts which go to make up such names may be classified as follows. "a" Proper names or alam, which answer to the French prénom and the English Christian name; "b" surnames or coonyat composed usually of the word aboo 'father' or ibn 'son' and another name, e.g., Aboo Yacoob 'father of Jacob,' Ibn Yacoob 'son of Jacob'; "c" nicknames or lacabs, and titles purely honorific or khitab, e.g., Aboo Maza 'the father or possessor of the goat,' Adad ood dowlah 'the prop of the empire;' "d" names of relationship or ism-oo-nisbat, e.g., Saady 'he who belongs to Saad'; "e" names of functions or of dignity, oohda or mansab; "f" descriptive names which poets give themselves or takhalloos, e.g., yaqueen 'certitude,' oozlat 'loneliness'; "g" tribal names. (2) *Proper names.*—The alam is the distinctive name of the individual answering

66. The habits of the people that most intimately concern the general administration are those connected with family life, family property, and the relations of the sexes. As these form in reality part of law, they can here be only lightly sketched; but they are in a high degree peculiar to the country. The first point to be noticed is the prevalence of custom as regulating such matters. Probably no civilized nation is so subject to this form of control. The strong ethical qualities of the Dravidian character have already been mentioned, and what religious caste observance is to the Indian Aryan, that custom is to the Tamulian; in Sanscrit auchaura, in Tamul vazhakkam, in Arabic maumool. This, or in other words precedent, is his chief guide. The Hindoo civil law as administered by the courts is in a great measure Brahminical law; but the customs of the Dravidians are recognized by the British legislature, and are acted on with certain reservation by courts of justice. The second point is the united nature of the families, and the

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to the European baptismal name. It is that by which a man is known in his family and amongst his familiar friends. Of these names one only is generally given; sometimes however two, e.g., Mahomed Ismail where the first is Arabian and the second is Jewish. The names given as an alam are those of Bible personages mentioned in the Koran, that of Mahomet, and those of the members of his family and his companions; but no others. Converts however and sons of foreign fathers sometimes preserve the name by which they are commonly known, taking at the same time Mahomedan proper names. Several Bible names have been altered by the Arab traditions reproduced in the Koran. Thus Schooaïb is the name given to Jethro, the father-in-law of Moses, Khidr or Khizr to the prophet Elija, Ibraheem to Abraham, Moosa to Moses. The principal alams are Mahomed or Ahmed; those of the four Caliphs, Aboo Bakr, Omar, Osmaun, and Ally; and those of the members of the family and of the companions of the prophet, Khadeeja and Ayeesha his wives, Fatima or Fatma his daughter, Ally his son-in-law, Hassan and Hoossain his grandsons, Abbaus and Hamza his uncles. The common Jewish names are Ibrahim, Ismail, Ishak, Yoosuf, and Israel. The Mahomedan proper names are common to all Mahomedan countries. An infant usually obtains the name of some member or ancestor of the family, or of the family tutelary saint; it is not customary among Mahomedans to give their own names to their children. There are also various methods of chance by which the name may be chosen; such as for instance taking the first letter of the first line of any page of the Koran opened at random as the one with which to begin the name. The ceremony of naming a child is called hanak and is held either on the day of birth or that day week. It is commenced by pronouncing in the ears of the infant the words of the izaun or call to prayer:—"Allah acbar; lah ilah illa Allah o Moohammad rasool Allah" or "God is the most great, there is no god but God and Mahomet is his prophet." Then immediately or several days after, the child receives its religious name or alam. The circumcision does not take place till later, sometimes eight days after birth, according to the command given to Abraham and sometimes during the forty days which follow it. (3) *Surnames.*—The coonyat is a surname, generally composed of the word aboo 'father,' oomm 'mother,' ibn 'son,' bint 'daughter' &c., followed by a proper name. Thus Abool Hassan. The coonyats may be divided into three classes. "a" Those which may be properly styled prænomen, because they are placed before the alam. These generally commence with the word aboo 'father' or oomm 'mother.' The word aboo may be grouped not only with the names hitherto designated as names of circumcision; but also with other substantives. "b" The second class of coonyats includes both those that may be styled genealogical and those which are distinctive surnames. These are generally composed of the word ibn 'son' changed sometimes by euphony into ben, and bint 'daughter,' and are placed after the alam. Very often after one ibn there follows a second, a third, a fourth and even more. The second precedes the name of the grandfather, the third precedes that of the great grandfather, the fourth that of the great great grandfather, and so on. Writers and distinguished personages are sometimes designated by their coonyat only. "c" The third kind of coonyat is a species of nickname, and is ordinarily composed of one word such, for example, as kabeer 'great,' moobaurik 'blessed.' (4) *Lacabs and khitabs.*—The word lacab is often translated as nickname, but it is very necessary to distinguish it from the coonyat just mentioned. It is employed more particularly to designate the honorific surnames given especially to grades, functions, and social positions. There are several kinds of lacabs. There are those which are peculiar to Mahomet and the patriarchs, such as Habeeb Allah 'the friend of God.' There are those peculiar to holy personages and sages, such as Taj oos shariyat 'the crown of the law.' There are those peculiar to Syeds, such as Cootb oolaulam, 'the pole of the world.' Of other honorific titles, there are those originally given to sovereigns. The words majesty, highness, lordship are expressed by the words janaub proximity, huzoor presence, &c. But these are now employed in speaking of all classes of persons. The Persian title of Bahaudur which properly signifies brave, belongs to this class, but is an every-day title for all respectable ranks, auswering to the English 'esquire.' The word sahib is still more common in the same way, this answering to the English 'Mr.' and then forms almost as it were a part of the proper name. It is sometimes however used as a synonym for sultan, e.g., in Tippoo Sahib). Honorific surnames are generally composed of two Arabic words, but sometimes of a greater number. The greater part of these lacabs terminate in one of the following words, deen 'religion,' dowlat 'empire,' moolk 'kingdom,' Islam 'Mahomedanism'; e.g., Allah ood deen or Aladdin, 'the grandeur of religion,' Fakr ood dowlah 'the glory of the empire,' Jelaul ool moolk 'the splendour of the kingdom,' Saif ool islaum 'the sword of Islamism.' Other lacabs are formed of the word abd 'servant' and Allah or one of his attributes, such as power, holiness, &c.; thus Abd Allah 'the servant of God,' Abd ool cawder 'the servant of the powerful,' Abd oos soobhaun, 'the servant of him who is worthy of praise,' and numerous others. Abd sometimes precedes abstract names, e.g., Abd ool hookm 'the servant of order.' The lacabs ending in dowlat 'empire,' or in moolk 'kingdom,' correspond correlatively with those which terminate in deen 'religion.' Thus Madj ood deen 'the glory of religion,' also Madj ood dowlah 'the glory of the empire,' and Madj ool moolk 'the glory of the kingdom.' The lacabs terminating in dowlat were generally given by caliphs or sultans to princes who recognized their authority, or who were their lieutenants or viceroys. The lacabs terminating in deen 'religion' are conferred on all classes of people. Besides these different classes of lacabs which end or begin with some definite word, there are an indefinite number of others; such, for example, as Shah i aulam 'the king of the world,' Alumgheer 'the conqueror of the world,' &c. It has been mentioned above that the same person often has several coonyats. It is also often the case that a person has more than one honorific surname. The lacabs composed in this manner are often abbreviated by only mentioning the first word composing the surname. Thus, for example, Cootb is for Cootb ood deen 'the pivot of religion.' The khilat is a title of honour, and the difference between it and lacab is very slight. (5) *Names of relation.*—The ism oo nisbat correspond to the agnomen of the Latins. They indicate the relations of origin, quality, &c. The names of relation showing origin, that is to say derived from names of towns and countries are very numerous. The names of functions or dignities are distinguished from the honorific surnames and the titles of honor in that they are the expressions of actual functions, and not, as in the case of khitabs, allegorical titles or fancy expressions which have often become appellations of politeness without any actual value. Amongst these names there are many which are common to the whole Mussalman world, such for example, are, imaum, sheikh, cauzee, &c. Again there are those which are peculiar to certain empires; e.g., Nizam, abbreviation of Nizam ood dowlah 'the setting in order of the empire,' a title given to the ruler of Hyderabad. Two titles altogether religious and common to many Mussalman countries are those of hafiz 'remembering,' which is taken by all Mussalmans who know the Koran by heart; and of hajee 'pilgrim' which is allowed to be taken only by those who have visited in person the sacred places of Arabia. The Arabic name fakeer and Persian name dervish is given even to all mendicant religious Hindoos. A head dervish is a Peer. The title of beg or bey 'prince,' is given to all

joint nature of their property. This institution is Dravidian, and is to no great extent favoured by the Sanscrit law. In the united family all even to the remotest member live in subordination to the elected head, and take part in common ceremonial observances. The limits of the family are defined on recognized principles. The head of the family is for the most part the oldest male, but where he is unfit another will be elected. In Canara a woman may be the head of the family. The ordinary condition of property with the Dravidians is that it is jointly held, and individual property will be only the exception; though the prevalence of this principle is in modern times becoming somewhat abated. Consequently when on a demise a man inherits, he will inherit no more than a share for his life of family rights. Yet again with the object of restraining the diffusion of property, adoption is practised. And not only as with the Brahmins an adoption of sons to perform religious ceremonies; but also of daughters, for these may equally assist in the continuance of the family. Connected with this are other family customs, such as the four following. Among the Teloogoos by the practice called Illatam the son-in-law is adopted and is the legal successor to property. Among the Bunts of Tooloova the sister's son should properly marry the brother's daughter. Among the Yerkalas of the East Coast the brother may claim for his own sons the sister's daughters. In many castes the father will marry the widow of the son. Another custom is that of the Vellaular of the old Chera country, and the Reddies of the Teloogoo country, where a girl is married in name to a son and actually to the father; though the significance of this with regard to property is not so clear. The fourth point is polyandry and those attendant legal customs which relate to inheritance. The inhabitants of this country have shared such a custom with those of many other countries of antiquity, of which ancient Sparta and ancient Britain may be taken for examples. The custom ever follows upon habits which are at once nomad and warlike, and which thus bring with them a disturbance of the balance between the numbers of the sexes. After that, many nations retain the custom, the necessity for it having passed away. In Southern India polyandry is the ancient traditional married state of the middle-class Dravidians, though not of the Pariahs. In modern Thibet and Ceylon the joint husbands are brothers, and not otherwise; and this is also the original institution in Southern India. The polyandry of brothers prevails openly amongst the Todahs of the Neilgherries, the Kullar of Madura, and many other Tamulian tribes. Polyandry of one kind or another prevails among all the artizan classes of the Dravidians. The polyandry of the Devadausies or dancing-girls attached to an idol is not held infamous, and they have justly been compared with the *ἑταίραι* of Athens. On the West Coast

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Moghuls, as also are the Turkish titles of aga and the Persian khauja. The word haukim not to be confounded with hakeem 'doctor' is used to designate a Mussalman ruler. The titles syed, 'lord,' ameer 'commandant,' and 'excellent' are given to the descendants of Mahomet. Saadat, the plural of syed, is specially given to the descendants of Mahomet's grandson Hoossain. Ameer or meer is given not only to princes and persons of high rank but to chiefs of different ranks; from this title is derived that of meerzauda son of an ameer, which by contraction becomes mirzah, a title given in this country to all Moghuls without exception. Sheikh 'old man' is applied in India to the descendants of Arabs. The title sheikh and that of meer is often accompanied by the word miyaun, an expression of politeness resembling the title of father given to monks. Moonsif 'arbitrator' is applied to a subordinate judge. (6) *Descriptive names.*—Takhalloos are, as has been said, the names which Mussalman poets give themselves, especially in modern times. The word takhalloos signifies making oneself distinguished. The reason for the adoption of this name besides the other names, surnames, sobriquets, and honorific titles which poets may have is that the custom is prevalent amongst them of inserting their names in the last verse of short poems, or at the end of a canto in longer ones. As the alams and surnames have often an unpoetical consonance and cannot enter into the measure of a verse, poets have in such a case been compelled to modify their name, or, what is more ordinary, to adopt a new one. When a poet writes in two or three different languages, he takes a different takhalloos according to the language in which he writes. (7) *Tribal names.*—Mahomedans are divided into four tribes: Syed, Sheikh, Moghul, and Pataun. The children of Mahomedans invariably belong to their father's tribes, and take either avowedly or impliedly a first name from the name of the tribe. Thus if the child is the son of a Syed, the first word attached to his name is Syed or Meer, e.g., Syed Ally or Meer Ahmed. If he is the son of a Sheikh, then at the beginning or end of his name is added one of the following surnames; Khoaja, Ghoolaum, Mahomed, Deen, Bux, Ally, Sheikh, Abd, or Allah; this, however, is not an invariable rule. If he is the son of a Moghul, his name begins or ends with Mirzah, Beg, or Aga. If he is the son of a Pataun, the word Khan invariably occurs at the end of his name. Sheikhs and Syeds also have this word Khan attached to their names, but only honoris causa. The following are exceptions to the above rules. Should the father be a Sheikh and the mother a Syed, the word Shareef is usually added to the beginning or end of the child's name. When the father is a Moghul and the mother a Syed, the child has the title Khoaja-zaday. The following are the tribal names given to women, at the beginning or end of their other names:—among the Syed women Begum, Beeby or Bee, Nissa, and Sahiba; among the Sheikhs, Ma, Bee or Beeby, except in the case of children of noblemen, to whose names Begum is added as a mark of dignity. This is also the case with Moghuls and Pataüns; among the Moghuls, Khanam; among the Pataüns, Khatoon, Khatoo, or Bano. (8) *The order in which the above are put together.*—These different names when compounded come in the following order. The honorific surname lacab or khitab, e.g., Taj ood deen 'crown of religion;' a surname of paternity or coonyat, e.g., Aboo Taiyib the father of Taiyib; the proper name or alam; one or more surnames distinctive of descent, e.g., Ibn Ahmed the son of Ahmed; a nickname; a name of relationship; lastly titles of functions or of dignities mansab. A few of the latter are placed before the names. The place of the tribal name is shown in the last paragraph.

there is both the polyandry of brothers and the less restricted usage. From this last form has proceeded the singular and distinct rule of inheritance called Maroomakkatoyem; whereby a man recognizes his sister's children, but will take no account of his wife's. This matter is more fully described in the last note attached to this article, and in several other places in the present publication. The Brahmins in their own caste have never adopted any portion of this usage; but on the other hand their male members have availed themselves freely of such customs of the country in their relations with others, and this on the West Coast where Brahmins are numerous and polyandry is the confirmed rule of the Nayars has had an important effect on the population. A result of polyandry is to advance the influence of women. Hence have arisen the female rulers of Indian aboriginal nations, of which so much mention has been made in history. The fifth point is briefly stated, namely that there is no original practice among Dravidians which forbids a widow to marry again. Among the petty ruling kingdoms of the south-east suttee was not long since a practice; but this was reserved for families of great persons [47].

67. The habit of the Dravidians is to marry in infancy. The girl at least is an infant. Where monogamy prevails, the girl is taken later to the house of her husband. The Dravidians are in the habit of burying their dead, but among the higher classes they also burn them. The distinctions under this head can be seen by consulting Vol. II, App. XXXIII [48].

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[47] NOTE ON FAMILY LIFE AMONG THE SOUTH INDIAN POPULATION AT THE BEGINNING OF THE EIGHTEENTH CENTURY.—*Introduction.*—A writer on South Indian law has brought forward the evidence of Père Bouchet, with regard to these questions. The following selection from his abstracts shows not only what were the customs in Père Bouchet's time, at the beginning of the eighteenth century, but also what are to a great extent the present customs in cases where the Dravidians have been least touched by Brahminical influence. (2) *Custom in place of law.*—Père Bouchet's book begins by stating that the Indians of the south, 'ont ni Code ni Digeste, ni aucun livre où soient écrites les loix ausquelles ils doivent se conformer pour terminer les différends qui naissent dans les familles.' But they had 'maxims,' handed down orally from father to son. (3) *The undivided family.*—In this writer's time 'division' rarely took place. When it did, it was upon the death of the father. When the brothers continued to live together in union, whatever one of them earned was thrown into the common stock, and enjoyed equally by all. On the other hand, upon a division taking place, any brother who was supposed to be wanting in intelligence was allowed a much larger share than the others, since they might be expected to make their fortunes by their personal exertions, whilst his case would be otherwise. As regards the payment of debts, the father was obliged in all cases to pay any debts contracted by the son, and children were in like manner obliged to pay all the debts of their father. It was immaterial for what purposes the money had been borrowed, whether for necessary expenses or otherwise. Connected with this rule was one to the effect that in no case could a father disinherit his son, or a son his father. In default of male issue, a man's father was the man's natural heir, and nothing could deprive the father of this right. Where a family of brothers was managed by the eldest, he was treated by the rest with the utmost respect, as if he were their father. And, like a father, this eldest brother was bound to pay the debts of the others, and to treat a spendthrift with the same indulgence as the more prudent brethren. All these provisions are in favour of keeping property together. (4) *Adoption.*—When an orphan had no elder brother, uncle, or aunt, a family council met and appointed a guardian for him, and prepared a deed showing the nature and extent of the child's property. Adopted children entered into the partition of the goods equally with the children of the fathers and mothers who had adopted them. The ceremony of adoption was very simple. The adoptive father's relatives having been convened, the child was made to stand in a large copper dish, and the adoptive father and mother spoke to the company present to the following effect. 'We inform you that, having no child, we wish to adopt this one. We choose him for our child in this wise, that our goods shall belong to him henceforth as if he were actually born of us. He has now nothing to hope for from his own father. In token whereof we are now going to drink saffron water if you consent.' Those present signified consent by moving their heads, and thereupon the adoptive father and mother washed the child's feet with saffron water from a vase, and drank part of what remained, and the ceremony was then complete. The act was recorded in a deed, to be signed by witnesses. If the adoptive father and mother subsequently had natural children, those were subordinate to the adopted, inasmuch as the laws made no difference between the adopted and the real child. Another kind of adoption commonly practised was that known as the 'Oppaury,' or resemblance. When a valued relative was lost, whether a child or a brother or a sister, the bereaved would often adopt in lieu of the departed a person supposed strongly to resemble the departed in personal appearance. A Shoodra might adopt a Brahmin by oppaury, and in such case the adoptee would show all proper respect to the adopter, though he might not eat with him. The death of the adopter by oppaury dissolved the tie, and the adopted did not inherit to him. (5) *Position of women.*—Uncles and aunts were regarded by the law as the fathers and mothers of their brothers' and sisters' children respectively, and therefore were obliged to rear them, when left orphans, as their own. With regard to these matters it is to be observed that a Tamulian to this day always calls by the name 'tagappan,' or father, his father, his father's brother, his father's father's brother's son, and others; while by 'tye,' mother, he means his mother, mother's sister, father's brother's wife, mother's mother's sister's daughter, and others. This is not owing to any poverty in the language itself, which always calls by separate names different species of a genus. The relation of such subjects to the position of women in the community has been explained in the text.

[48] SKETCH ACCOUNT OF BIRTH, MARRIAGE AND DEATH CEREMONIES AMONG THE SOUTH INDIAN MIDDLE CLASSES.—*Birth Ceremonies.*—When a respectable Tamulian, not of the poorest class, is born, a Brahmin is summoned, who is sufficiently versed in astrological science, and with whose house the family has been connected from perhaps the time of their forefathers. The time of the birth is told to the minute, and the Brahmin then draws up the horoscope of the child, going into all the details of its history. This horoscope is carefully kept and is consulted on occasions of importance. The sex of the child is of importance amongst those who follow Hindoo law, because only the son can perform the funeral ceremonies of the father. Amongst such a man without a son must make an adoption, and this is a costly proceeding. When the child is a few days old a name is given, which is generally one of the many names belonging to the gods of the Hindoo pantheon. Daughters also frequently bear the names of the goddesses of the pantheon. The ceremony of naming is a simple one, but it may not be neglected. If the father hesitates between several names, he writes down the different names, places a lamp before each and selects the one in front of which the lamp burns the longest. When the name has been chosen, the priest is summoned, the parents sit down on the ground, the mother takes the child in her arms, and the priest gives to the father a vessel with raw rice, upon which is inscribed the child's name and the star under which it was born. The name of the child is then three times pronounced, an

68. The superstitions or minor creed of the Tamulians form a considerable part of their daily interests. They believe in omens good and bad, and look for them as encouragements or warnings on a variety of occasions, such as in journeying from one place to another, or when a marriage is under consideration. It is regarded as a favourable omen, if when proceeding on business a crow fly from left to right, or the traveller meet two Brahmins, or a married woman, or a jackal. If these good omens occur, they believe that they will surely succeed in the object of their journey. It is a bad omen to meet a single Brahmin, or a widow; or if a crow fly from right to left, or if a cat cross the path. On seeing such an evil omen most Tamulians will postpone the journey, however emergent; though they may return home for a short while and set out again. It is a good omen if, when a marriage engagement is to be ratified, the toll of a bell is heard or the neigh of a horse. A person sneezing, or the sudden extinguishing of a light, is a bad omen. Before astrology the Tamulian mind bends in entire submission. The chief difference between the Indian and European system of astrology is the division of the lunar orbit by the former into twenty-seven mansions with a supplement, and the preponderance it gives to the moon's place in those mansions at the time of birth. The European system takes the ascendant as one, and divides the heavens artificially into twelve houses. In the great importance given to the sign in the ascendant, and on the general influences ascribed to the planets and the sign or signs governed by each planet, both systems agree. These features of astrology arise out of the astronomical principles described at page 609 of the present volume. The astrology of Southern India is Brahminical. Divination has been carried to a considerable extent; and chiefly, as in Europe, by those professing astrology. A portion of the latter indeed relates to horary questions, or questions put on particular occasions to be answered by the stars. There are however other devices. One resembles the Sortes Virgilianæ, where passages are extracted from the Ramayana, and squares are formed bearing figures. The inquirer chooses a square, or pricks one at hazard. By reference to the book, the answer is given from the Ramayana; and is deemed oracular. There are besides modes of divination by omens and signs, derived from animals, birds, or reptiles. The notes of the lizard

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offering is made to the household deity, and the ceremony is at an end. As many guests are invited as the means of the father permit. The name thus given remains until death, but before his death the wife may never mention the name of her husband. (2) *Marriage ceremonies.*—An account of these for different castes and tribes will be found in Vol. II, App. XXXIII, but the following remarks may be taken as applicable to the generality of the middle classes. When the daughters are from six to eight years old it is necessary to marry them. The boy may be older, but to be in accordance with the customs of Southern India, the girl is seldom more than eight years. The bride should not be taken from a family which neglects its religious duties, which is subject to disease, or which has no sons. The ceremonies at a betrothal are of different kinds. In an ordinary Shoodra family the couple walk three times round an altar on which burns a fire, and then prostrate themselves in honor of the deity. After this, the girl touches fire and water in order to signify her readiness to perform household service. Then she eats with her husband for the first and only time in her life. After these ceremonies, familiar conversation takes place amongst the guests, and if there happen to be learned Brahmins present, they recite ethical maxims. A betrothal, or marriage as it is called, costs much money. The consummation in no case takes place until the girl has attained the age of puberty (twelve to thirteen), and though the marriage may be celebrated when the girl is only six or eight years of age, she always remains in her parents' house until this occurs. Family life amongst the superior classes is generally quiet and well-ordered, and in the attachment and fidelity of the wife to her husband there is frequently nothing to be desired. After the bringing home of the bride, which takes place as just mentioned only after the bride is of mature age, the wife remains with her husband in the house of her father-in-law. Even though there may be several sons married, they remain together until the death of the father, when the eldest son takes his place, and so in course of time separate families are formed. The daughters alone when they marry go to other houses. (3) *Death ceremonies.*—The case of superior families will be here considered. With these a dying man is usually laid upon coosha grass, which is a kind of bean straw. This grass is held to destroy sin. The relatives pour into the mouth of the dying man drops of milk and call their own names aloud, so that he may remember them in another world. When death has actually occurred, it is the duty of the eldest son to wash the deceased's head and to anoint it with oil, being aided in this by his relations. The dead man is then wrapped in a new cloth, and is placed on a litter in a half-sitting position; and ground rice and betel are placed in his mouth. After the death lament is over which is the duty of the women, the corpse is carried out. This must be only a few hours after death. The eldest son leads the way with fire in a vessel, and music follows behind. Only the male relations follow the body, the females remaining with the widow. If it is a person of position who has died, cloths are laid down in the road over which the procession passes. These cloths are picked up and then laid down again in front. Arrived at the burning-place, the corpse is placed on the already-prepared funeral pyre with the feet towards the south, so that the dead man's head points towards the north. It is not known whether this is an Aryan or a Dravidian provision. The eldest son then walks three times round the father's corpse, with a torch in his hand, and a pot of water on his shoulder. He thrusts the torch into the head-end of the pyre, and lets the pot fall from his shoulder, so that it breaks and the water flows on to the ground. He then bathes in water near at hand and goes home without looking round, that the father's sin may not come upon his head. Corpse-burners employed for the purpose perform the rest of the necessary acts. The succeeding ceremonies or carmauntaram are described in the appendix above mentioned. From thenceforth the widow if there is one remains under the protection and the guidance of the eldest son, who not only with reference to her, but also in regard to the whole house, assumes the father's place as the head of the family. The widow lives upon what her husband has left, or if she has children, by their labour. In the event of there being neither property nor children, the nearest relative, even though a distant one, provides for the widow. If all other resources fail, the widow will go to a stranger's house and make herself useful in domestic duties. When the girl is married at the age of about eight years, she may be a widow at nine or ten years of age.

in particular are considered oracular by their number, the quarter whence heard, and the day of the week when heard. Native doctors of all creeds deal in charms and spells, and many Tamulians use them in private. Palmistry is a regular branch of knowledge; but the practice is generally regarded in the Carnatic as belonging to the Coorava tribe, who are the fortune-tellers of the south[49].

69. The scientific knowledge of the Dravidians would be an extensive theme. In anatomy they are deficient; but in diagnosis, prognosis, and the remedial portion of the medical art they are expert. The uniform theory that all diseases may be traced to excess or irregularity in wind, bile or phlegm, gives a peculiarity to their medical system[50].

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[49] PARTICULARS OF MAGICAL RITES IN SOUTHERN INDIA.—The more formal operations of the magician, which are not at all unknown in this country, are connected with fire-offerings. Previously the locality, selected whether by day or by night, is to be purified by exorcism. To bind the guardians of the eight points of the heavens is a necessary part of the ceremonies. Fire-pits are made to represent the sun, moon and planets; and these must be placed properly with respect to the points in the heavens. Suitable offerings to each are provided, and what is consumable is burnt by fire. The favourable influences of the planets are then supposed to be brought down to the fire-pits, and to aid in the operations. Besides spells to the planets, there are others addressed to mystic and invisible beings. The spell so addressed has two parts. The yantra or diagram which varies greatly in form with reference to the being addressed, and the object intended to be accomplished. Destructive spells of the Sheiva kind are marked by the shoolam or trident of Shiva pointing outwards in various directions. Some yantras are square, or square within a square. Some are circles, triangles, or irregular polygons; and these inscribed or circumscribed with reference one to the other. Some are in the form of animals. Some have human forms. And these last are usually particularly deadly in their purpose. The proper diagrams must be drawn with attendant ceremonies. To each power again that is invoked there is a peculiar letter, usually syllabic, known as the veeja. This is all potent as to that power. Other syllables are inserted in certain places, of which the meaning is not known. These different syllables are to be whispered, muttered, or otherwise sounded, a prescribed number of times. When the operator is exhausted an act of meditation is to follow. The mind retraces the whole operation; fixes attention on the diagram, which represents the power invoked; considers all that is known of such power; and adds the wish that the rite may succeed in producing the ishta siddhy or accomplished desire. With this act the operation ends. In some spells, hairs, feathers, bones, and different herbs or roots, culled at particular times, as midnight, the new moon, or an eclipse, are used. When magic is to be formally directed against a person, an image is made representing him, or a stone is taken with the same reference. The operator then proceeds by digging a pit and burying the image or the stone; sitting over the spot when filled up muttering the syllabic spells a great number of times; and returning often to the spot to repeat the spells. In less formal sorcery, it is the practice to use materials, which are administered to the other person in his food or drink, or when betel is presented. The person who receives does not known what he is taking. The preparation of the materials is attended with spells, and so also the administration if it is direct. Such practices as these are universal.

[50] SKETCH ACCOUNT OF THE MANNERS AND CUSTOMS OF CERTAIN SPECIAL TRIBES—*The Sowrah Koiarian tribe.* —In the Namalinga Shasanam, an ancient Hindoo work descriptive of the various tribes inhabiting the Indian peninsula, the Sowrahs are classed under the general head of Shoodras. They are divided into the following tribes; Soodda, Sannapaniya, Mela, Lodoro, Jarah, and Lombolanjiya. There is no distinction of caste among them, but they have gradually become divided into two bodies, the Caupoo Sowrahs and the Condah Sowrahs, the former inhabiting the more open country near the plains, while the latter live in the dense forests on the hills to the north of Parlakimedy. The greater number are independent of all control, and as far as is known, have no chiefs among themselves. They sometimes cultivate dry grains on the slopes of the hills, often at an angle of 45°, while here and there crops of paddy are raised on the small level patches between the hills. There are a few Sowrah villages of tolerable dimensions among the hills, and there is in one place a large one consisting of more than 200 houses. But the Sowrahs generally live in huts situated singly on the hill-sides, or in small groups of four or five. They are not particular as to what they eat, but like the Dravidian Khonds they have a peculiar objection to the use of milk in any form. Their dress consists of a piece of coarse cloth manufactured amongst themselves. This is fastened round the waist by the women and reaches to the knees; the men merely wear a lungooty, or piece of rag fastened to a string round the waist and passing between the legs. Their ornaments consist of nose-rings, ear-rings, bangles, &c., made of brass or bell-metal, and strings of coloured glass beads round the neck. On festivals the men decorate their hair with peacock and other feathers. In the cold weather small parties of from five to ten are in the habit of making incursions into the plains in order to rob travellers of their cloths, and murders occasionally occur. Their religion is demonolatry. They have no gods. Their goddesses are three in number; Joolva, to whom they sacrifice goats, Gangy, to whom they sacrifice a pig, and Jommo, to whom they sacrifice a fowl. At the time of worship they use the tom-tom, and the worshipper dances before the goddess. When a child is born, they assign to it the name of the day of the week on which it was born, or that of the presiding evil-spirit. They burn their dead, and on the following day bury the ashes in the same spot. Though this race is considered far more wild and savage than the Dravidian Khonds, they have had no share in the meriah or human sacrifices formerly performed by the latter. When two tribes fight, the women, who are held sacred from injury, mingle in the fight, and endeavour to protect the men of their own side. In fact, so much authority were the women once supposed to have, that it was the custom to summon the women to 'bhet' (the meetings to which the hill people are summoned by the governor's agent, while making his annual progresses through the hills), and inform them that they would be held responsible if they let their men quarrel or misbehave. The weapon in most general use among the Sowrahs is the bow and arrow. The bow is of bamboo and the arrows of light reeds, with a barbed head of beaten iron. Some also carry rude iron knives and a hatchet called 'taungy.' Besides carrying on cultivation, some of them work in iron, others make mats of bamboo, and others weave coarse cloths. A pleasing feature in their character is truthfulness. They are not accustomed to hard manual labour, and to a great extent prefer roving in the jungles. They are as a body ignorant and harmless, but at the same time they are often excited to acts of daring and crime of every description. They possess many good qualities, and only require proper guidance and instruction to become a civilized people. (2) *The fisherman class on the East Coast.*—The fishermen and hunters of Southern India are associated together indiscriminately in the same tribes. The fishermen of the East Coast are employed without difference in fishing, hunting and navigation. The Boyi tribe of Teloogoo fishermen are extensively employed as palanqueen-bearers and domestic servants; where these have gone inland as in Kurnool and Bellary they become cultivators and labourers. These tribes eat flesh, marry several wives, and bury their dead. The northern fishing tribes are mostly Veishnavites. Along the south coast they are nominally Sheiveites and really demon-worshippers. There are however a large number of Roman Catholics. The Parava fishing caste on the Madura and Tinnevelly coasts are said to have been the earliest navigators of the Indian Ocean. A more particular account of the fishing and hunting tribes generally is given in Vol. II, App. XXXII. The masulah boat or fish boat of these tribes is remarkably constructed, and of its antiquity there can be no doubt. The materials for its construction are obtained from neighbouring cocoanut and mango topes. Planks of mango wood are saturated in oil and bent into shape over a large fire, and then seamed with cocoanut fibre or coir and straw. For buoyancy and elasticity this construction has been unsurpassed, and is an ingenious adaptation of local resources.

HISTORY.

70. Introduction.—In any enumeration which may be made of the literature proper to this country, one capital defect must be obvious, that history finds in it no place. The legends of Indian mythology may be plausibly supposed to have a foundation in the story of some celebrated early kings or conquerors, but it is scarcely possible through the mist of fable even to conjecture anything respecting the real existence of these personages or the events connected with them. The Grecian Iliad and Odyssey are in comparison with Hindoo legends plain and authentic chronicles. Indian chronology, like that of the Greeks, is divided into four ages, of which three are fabulous; and the first consists of nearly 2,000,000 years. The professed English historians, with the exception perhaps of one writer Colonel Meadows Taylor, have treated the subject of South Indian history for any other period than that connected with British rule with much indifference. The Mahomedan historians have confined themselves to their own period, and the records of Golcondah and Beejapore scarcely touch this Presidency. The Mahavanso of Ceylon deals with India but incidentally. Antiquarian research is only now beginning to find means of supplementing the deficiency caused by the absence of materials constructed or collected by usual historic methods. These results are specially to be regretted, as without doubt the population who have for many ages occupied this portion of the peninsula are a great people, influencing the world not much perhaps by moral and intellectual attributes, but to a great extent by superior physical qualities. A celebrated historian writing in 1841 says that the history of the Deccan is less obscure than that of the rest of Hindostan, but is also less interesting. Further knowledge does not confirm the latter remark.

71. The three Periods preceding the earliest known Dravidian Dynasties.—The history proper of the south of India may be held to begin with the Hindoo dynasties formed by a more or less intimate mixture of the Aryan and Dravidian

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Some years ago a series of experiments were made with two English life-boats built on different principles, and the result was that they were found to be failures as compared with the masulah boat. The superiority of the latter over those of European build is perceived when they are launched from the beach. A carvel built boat is severely strained in being forced over a sandy beach against a chopping surf, and each surge as it breaks tells with injurious effect upon the sides and timbers. The masulah boat having no keel and a smooth and somewhat rounded bottom, and having planks sown together, is so thoroughly pliant that every portion of the boat yields to the pressure without sustaining injury. These boats, formerly used for net fishing from the shore, have been adopted by modern commerce as a means of communication with shipping through the heavy surf which characterizes the east coast. For deep sea-fishing is used the catamaran or 'cuttoo-maram.' This means wood tied together, or raft. Three or five logs about 20 feet long are tied together with cocoanut rope, and having both ends pointed are propelled with one or more paddles. The catamaran man wears nothing but the lungooty and a conical cap made of date leaves. His position while in a sitting posture is awkward with his legs folded under him, the ankles and heels forming the seat. He occasionally stands up and paddles. The usual occupation of the catamaran man is fishing, and he leaves the shore for the purpose before dawn in the morning and returns late at night. The catamarans on these occasions are usually propelled to and from the fishing grounds by a large triangular sail made of country cloth, dyed a brown color. With a brisk breeze in their favor, they frequently proceed at the rate of five or six miles an hour. These men have no fear of the shark which infests the coast until towards evening, when they avoid him. Though spending much of their time in the water, they are remarkably quick in their movements when so engaged; to which may be attributed their immunity from danger. They are scarcely ever assailed by the shark. (3) *The Tanda Poolaya Malayalam tribe.*—The men of the Tanda Poolaya tribe (or Poolayar who wear tanda grass) wear the ordinary lower cloth of the kind worn in this country; but the distinctive name of the tribe comes from the women's dress, which is very primitive. The leaves of a water-plant are cut into lengths of a foot long and tied round the waist in such a manner that the strings unwoven hang in a heavy tail behind, and present the same appearance in front, reaching nearly to the knees. These people are also called Coozhy or Pit Poolayar, from some legend. Their language is Malayalam. They worship the sun and heavenly bodies, and there may be observed among them small temples about the size of a large rabbit hutch, in which is a plank for the spirits of deceased ancestors to come and rest upon. The spirits are also supposed to fish in the backwaters, and the phosphorescent appearance seen sometimes on the surface of the water, is taken as an indication of their presence. The food of the Poolayar is fish, often cooked with arrack and with the liliaceous roots of certain water-plants. When visited at noon they are often found intoxicated, especially the men. They live principally in the Malayalam country south of Cochin, between the backwater and the sea; but another division of them is found more south near Alleppey, who are called Cunna Poolayar. The latter wear rather better-made aprons. When a girl of the Tanda Poolayar puts on the apron, a sign of maturity for the first time, there is a ceremony called the Tanda marriage. (4) *The Teeyar of the West Coast.*—The local tradition is that these are immigrants from Ceylon, who came over at the request of some of the early settlers on the Western coast. In the far south on both east and west coast they are called Shaunaur, in Central Travancore as Ilavar or Eezhwar, from Quilon to Paravoor as Chokkanmar, in Malabar as Teeyar, and further north as Billawar which is a corruption of Ilavar. Their labours are chiefly bestowed on the cultivation of the cocoanut palm and the manufacture of its various products. Many own or rent small plots of land on which they cultivate a few trees and a small supply of kitchen vegetables, and some of them are in comfortable circumstances. They draw the fresh sap from the cocoanut palm, which is used as a drink, either fresh or fermented. It is also boiled into a coarse sugar, from which they distil the native spirits called 'arrack.' Among this tribe the inheritance descends to nephews by the female line. A few divide their property, half to the nephews and half to the sons. The rule is that all property which has been inherited shall fall to nephews; but wealth which has been accumulated by the testator himself may be equally divided between nephews and sons. Some portion is usually left to the widow as a kind of legacy. She may however have received some property from her husband during his life, by deed of gift, or may have secretly accumulated her savings in anticipation of widowhood. As a rule their women

systems of government. But prior to that three stages of historical knowledge are recognizable; first as to such aboriginal period as there may have been prior to the Dravidian, secondly as to the Dravidian period proper, and thirdly as to the period when the Aryans had begun to impose their religion and customs upon the Dravidians, but the time indicated by the early dynasties had not yet been reached.

72. The most ancient facts regarding Southern India are remarkable. Geology and natural history alike make it certain that at a time within the bounds of human knowledge this country did not form part of Asia. A large southern continent of which this country once formed part has even been assumed as necessary to account for the different circumstances. The Sanscrit Pooranic writers, the Ceylon Booddhists, and the local traditions of the West Coast, all indicate in different manners a great disturbance of the point of the peninsula and Ceylon within recent times. The date given by English theologians to the Noachian deluge is 2348 B.C., and that given by the Ceylon Booddhists to the latest submergence in the region of Ceylon is 2387 B.C. The two dates cannot have been arrived at with mutual knowledge. Investigations in relation to race show it to be by no means impossible that Southern India was once the passage-ground by which the ancient progenitors of northern and Mediterranean races proceeded to the parts of the globe which they now inhabit. Human remains and traces have been found on the East Coast of an age which is indeterminate but quite beyond the ordinary calculations of history. Mention will be found of these different topics in other parts of the present volumes. They are material here in so far as they are connected with the question whether there was or was not a population of Southern India earlier than the Dravidian. All enquiries connected with populations show the impossibility of assuming any anterior limit in such series. At the same time there is for practical purposes no evidence of any earlier population in the present instance. In this part of the world, as in others, antiquarian remains show the existence of peoples who used successively implements of unwrought stone, of wrought stone, and of metal

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wear no clothing whatever above the waist. The devil-worship of these people has been described above in connection with the Shaunaur. (5) *The hill tribes of the South-western Ghauts.*—These are called Caunicaurar (heritors), or Malaiyarasar (hill kings). Most of them are migratory in their habits, cultivating for a year or two plots of ground cleared from the forest, and afterwards removing in search of other fertile lands. They also collect the honey and other spontaneous products of the forests. They have their fixed villages in picturesque sites on the slopes of the mountains, or in almost inaccessible ravines. Some of their houses are good, substantial erection of wood and stone, but most are mere temporary huts of mud or bamboo ingeniously interwoven with leaves and grass. These people are employed in Travancore in digging the elephant pits, and helping with bark ropes to conduct the animals into the taming cages. The men go almost naked, having only a few inches of cloth round the loins, and a small cloth on the head. They are short in stature, but strongly built. The women wear bracelets of iron or brass, numerous necklaces of coral or beads, and leaden rings in the ear. They are unable to read or write, or to count above a dozen; fibres of various climbing plants are knotted in a particular way to express their wants. They rarely know their own age. Being addicted to the worship of the hill demons, they are supposed to have great influence with those evil spirits, and are therefore dreaded by the people of the low country. (6) *The Nayars of the West Coast.*—This is the common appellation of the ordinary Dravidian middle class of Malabar. The greater portion of the land is in their hands. They hold most of the Government offices, and they form the wealthy farmers, merchants, and skilled artisans of the country. The reigning families of the West Coast are members of this caste. Nayar means lord, chief, or master. Amongst the Nayars there are several sub-divisions, with their distinguishing titles and characteristics, and their respective gradations of caste pre-eminence. The Nayar customs with respect to marriage are of a most singular character. In early youth the girl goes through the ceremony of marriage by having the "talee," or marriage cord, tied round her neck, but this is not followed by cohabitation. When arrived at a marriageable age lovers present themselves, and the favoured person offers to the woman a cloth and other presents, and either resides with her or visits her at intervals in her brother's house. This is called 'giving a cloth and residing together,' and is the only practical substitute for marriage amongst these people. The engagement is not binding upon either party longer than they choose, and is readily dissolved. The woman is at liberty to dismiss the man, or the man to dismiss the woman, on easy terms. A settlement of accounts as to presents, expenses of marriage, ornaments, &c., and a deed of separation, drawn up and signed in the presence of four witnesses of the same caste, dissolves the connection. Many of these alliances however are continued throughout life. This custom is evidently the survival of polyandry; a system first tolerated in the absence of a sufficient check on the women, and then constituted a national custom with the attendant consequences. From the marriage customs arises the law of inheritance or maroomakkatoyem, mentioned several times in these volumes. The children of a Nayar woman inherit the property or rights not of their father, but of their mother's brother. They are their uncle's nearest heirs, and he is their legal guardian. So it is also in the succession to the throne in reigning families. In conjunction however with the system of descent 'ab utero' is that of the undivided family, so that although the woman's son inherits, he only inherits his share in that undivided family, in other words his right to maintenance. As a further result of these two customs combined it follows that with the last female a family ceases to have the power of continuance, and with the last male thereafter dies out; escheats to Government frequently arise from this. The custom of polyandry itself is regularly practised by carpenters, stonemasons, and individuals of other occupations. This is usually done amongst brothers. Several brothers living together are unable to support a wife for each, and take one amongst them, who resides with them all. The children are reckoned to belong to each brother in succession, in the order of seniority. These peculiar usages of the Nayars give to their females considerable social influence and liberty of choice and action. Most of them know how to read and write. This class of people cherish a most tenacious attachment to their native locality and country, and are rarely known to engage in travel, or to emigrate to other parts of India. They were once trained to the use of arms; carried a sword and shield, and were noted as warriors. They are exceedingly able in the management of business affairs.

fashioned in the most primitive manner. These tribes have also left cairns and stone circles indicating burial-places. It has been usual to set these down as earlier than Dravidian. But the hill Coorumbar of the Pulmanair plateau, who are only a detached portion of the oldest known Tamulian population, erect dolmens to this day. The sepulchral urns of Tinnevelly may be earlier than Dravidian, or they may be Dravidian. It has been alleged that the Kolarian races of the north-eastern part of the peninsula, whom various considerations show to be in a measure more primitive than the Dravidian races, preceded them in Southern India. This is not demonstrable. The two sets of races are more probably parallel and allied. It has been stated that the wild tribes of Southern India itself are physiologically of an earlier type than the Dravidian tribes. This position has been found not to be proved, the conclusions being of a negative nature. The evidence of the grammatical structure of language is to be relied on as a clearly distinctive mark of a population, but from this point of view it appears that there are more signs of the great lapse of time than of previous populations. The grammar of the south of India is exclusively Dravidian and bears no trace of ever having been anything else. The hill, forest, and pariah tribes use the Dravidian forms of grammar and inflection. However much of the stock of any previous aborigines may remain under the laws of descent or intermixture, by the most precise of the language tests they must be regarded as having been obliterated. The vocabulary alone of the rude dialects may yet be found to give traces of ancient pre-Dravidian languages. The worship of serpents, and that mysterious form of combined worship addressed to trees and serpents together, pertains probably rather to Mongolian races than to the Dravidian races proper. It has undoubtedly prevailed in Southern India, and if this has been so generally and not sporadically it is an argument for the existence of populations prior to the Dravidian. The worship of serpents, living and in effigy, still survives. The habits and customs of the people exhibit that most remarkable breach between one section of the population and another which is expressed by the terms Hindoo and out-caste. This may be a religious or caste distinction effected by Brahminical influence. It may indicate an essential difference of race. The social breach is so wide as to furnish the strongest argument that exists for regarding certain tribes as earlier than the Dravidian in their origin. Polyandria, the most noticeable social peculiarity of Southern India, belongs as much to the Dravidians as to any other race. As regards native chronology it need only be said that the local traditions of the oldest portion of Chera Mandalam or South Travancore make the Dravidian dynasty of that country coeval with the origin of the world. The arguments have been stated for considering that there was a population earlier than, and distinct from, the Dravidians. It will be seen that history is almost silent on the subject.

73. The Dravidians, a very primeval race, take a by no means low place in the conjectural history of humanity. They have affinities with the Australian aborigines, which would probably connect their earliest origin with that people. But they have emerged from the lower type, and acquired characteristics putting them at no great distance in the physiological scale from the later developed Semitic and Caucasian races. As now known they are not straight-haired like the Malays and Mongolians, but more or less curly-haired like both of the last-named. The theory that they came to India from without, passing over the north-west boundary and through Scinde, does not rest on sufficient evidence. This movement appears to have been the characteristic of much later races. If the Dravidians moved into India at all, it may more reasonably be conjectured that they came from the south or the east. As far as present evidence goes however they are indigenous to India, and perhaps specially indigenous to Southern India. The Dravidian terms indicating direction, which must be very primitive, are derived from the configuration of the southern peninsula. The east is கிழக்கு (kizhakk) or "down," and the west is மேற்கு (merg) or "up;" that is to say the country sloping to the coast and the country rising to the Western Ghauts. The Dravidians may have been at first nomads in India. Numerous local traditions testify to minor migrations. The Greeks knew one small section of the race as σῶραι νομάδες still in their own day. As to their language, no other is known to which it can be affiliated. The attempt even to group it with the imperfectly defined Turanian tongues is not satisfactory. It stands alone, without any imme-

diate predecessor. In origin it must be long anterior to the Sanscrit, which has subsequently played so important a political part with regard to it. Its original strength is shown by the great persistence of its grammatical formations through all the vicissitudes of history. The early Dravidians probably had for religion a worship of the spirits of ancestors, coupled with that of hostile demoniac personages of other and various descriptions. When religious observances developed they appear to have taken the form of the sacrifice of living animals, and those peculiar rites of devil-priests which have been elsewhere described. But at all stages religion is composite. It is stated that கோ (ko) means the deity and கோவில் (kovil) or temple means the house of the deity. But that these meanings are primitive requires verification. கோ means originally ruler, and கோவில் a ruler's residence. No traces exist of any early worship paid to a supreme deity. The Dravidians had no priesthood. The Brahminical writers of later days described the Dravidians as mountaineers, foresters, monsters, and even goblins; an account which must be taken with considerable qualifications. Ravana when attacked by Rama was the ruler of a powerful and civilized state, which embraced not only the island of Ceylon, but the whole of the southern division of the peninsula; and his subjects appear to have been in some respects as advanced in civilization as the colonists. The fishermen of the south, dependent on the moon's phases for their operations, early developed a primitive lunar computation of time. The agriculturalists of the plains observed the seasons and the movements of the sun. The astronomy of the Dravidians thence arising was first lunar and then strictly solar-sidereal. The vocabulary and the institutions of the people show that they had a highly developed practical astronomy before they were touched by Brahminical influences, and their system still holds its ground in many respects. The Jovian cycle of five revolutions of Jupiter or sixty years, which regulates the chronology of the Tamulians, is no part of the Aryan system. The familiar period of twelve years for domestic events among the Tamuls has the same derivation, and is similarly independent. The religious festivals which are proper to the Tamulians can be called fixed, varying only with the fluctuations between diurnal and solar time, and differing from the Hindoo festivals which vary extensively under the lunar-sidereal system of the Indian Aryans. The Dravidians knew all the ordinary metals indigenous to the country. Spinning, weaving and dyeing were common arts. Medicine was systematically practised. They possessed considerable constructive, if not architectural, power. The Amravatty stoopa and the rock-cut temples at Mauvellipore may have been produced in later ages under Brahminical or Booddhist influence, but they are a development of strictly indigenous art. The date of the Vattezhoot alphabet is not known, but it appears to be very primitive, and no direct connection has been found between it and those alphabets which are of northern origin. The literature of the Tamuls where not anterior to Aryan influences was at least developed in complete independence of them. Some of the most esteemed of the old writers were of the Pariah tribe. Much of the old literature also may have disappeared. Writing was effected by a style on palmyra leaves and a bundle of these leaves was called a book. The numerical system of the Dravidians was adequate and extended to a hundred if not to a thousand. In abstract ideas and philosophy alone they were deficient. In fine the Dravidians were a practical people, with considerable resources. In matters of government they were, unless in their very earliest stages, under a monarchical system, with defined areas of country for the exercise of rule.

74. About 2,000 or 3,000 years B.C., perhaps at the beginning of what has been styled the Kaliyoog or 3101 B.C., the Sanscrit-speaking Aryans came into India from their original home at the sources of the Oxus in the neighbourhood of Bokhara; where they had resided till the period when the Iranic branch of the tribe went to the south-west, and the Indic branch went to the south-east. The Indic branch of the Aryans advanced down the basins of the Indus and the Ganges to the estuary of both rivers; and then proceeded by different routes into the lower and middle range of the Himalaya, up the valley of Assam, down the coast of the Bay of Bengal as far as Chicacole in the Ganjam District, across the rivers Nerbudda and Mahanuddy into Central India, and along the west coast as far south as Goa. Another portion of the same branch went by sea to Ceylon, and laid the foundation of the Singhalese civilization. A third went by sea to Java, and did the same in that island; a remnant of this section of the Aryan race existing to the present day in

the Island of Baly east of Java. Remains of the original Aryan race itself are said to survive in Cashmeer. The Vedic hymns record the progress of the Aryans in this advance into India. The earlier hymns disclose them still to the north of the Khyber Pass; the later hymns show them arrived at the Ganges. Their first settlement in India was in a strip of country, not more than 60 miles long by 20 miles broad, situated in the country of the Seven Rivers, now part of the Punjaub. The poem of the Ramayana describes them as having extended eastwards as far as Ayodhyah or Oudh, and Menoo at a later date speaks of them as spreading through the Madhyadesha, that is to say the middle-land, or as far southwards as the Vindhyas. The date of the first settlement of the Aryans in Southern India was more obscure than that of the first arrival of Aryans in India. The date of the events recorded in the Ramayana may be about 2000 years B.C. The Teittireeya Oopanishad says that the unbounded south was given to Yajoorveda, meaning that the followers of that Veda were the first to penetrate there, and showing that the southward movement began a considerable time before it was written. This Oopanishad itself must date several centuries before the Christian era. The colonization of Ceylon by Vijaya an Aryan from the north-east coast is a later event, but may not represent the first visit of the Aryans to that island. The date of the first permanent intercourse between the Aryans and the Dravidians was antecedent to the era of the Greek traders, for then the greater part of the country had been already brahminized, and many places were known at any rate to the Brahmins by Sanscrit names. As far as is actually known from direct evidence the first Aryans who settled permanently in the south were hermits, who by civilizing the people round about them gradually opened a pathway for more effectual invasions. The most prominent name among these ascetics is that of Agastya, who is celebrated for the influence he acquired at the court of Coolashekhara, according to tradition an early Pandyan king. He is called the Tamizh Moony, or Tamulian sage. The mountain from which the Porny or Sanscrit Tamrapurny takes its rise is still known as Agastya's hill. The Aryans in whatever numbers they may have come, abandoned their own language in Southern India in favor of the Dravidian languages, and at the outset at any rate modified to a great extent their own religion and customs. In Coorg there is no Brahmin influence even to the present day. The ascendency of the Brahmins was brought about gradually and by the arts of peace; for if it had been effected by warlike means some traditions of the fact would have survived. There are however none such, and all existing traditions, and the names by which the Brahminical race is distinguished in Tamul, viz., ஐயர் (ayyar) or fathers and பார்ப்பார் (paurpaur) or overseers, point to power gained by means of administrative ability, rather than by violence. The history of the Aryan colonization of the south is little more than a history of religion, and manners and customs. These have already been illustrated[1].

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[1] SKETCH ACCOUNT OF SANSCRIT LEGENDARY NOTICES RELATING TO SOUTHERN INDIA.—*Introduction.*—In this extensive subject only the most salient points can be noticed. The first note in the present volume has shown the facts relating to geography which are to be obtained from the same source. (2) *Early Aryan history in the north.*—The original home of the Indo-Aryans was in Central Asia, north of the Himalayas. Moving southwards at a period of remote antiquity they crossed these mountains, and finally established themselves in India. Their earliest seat seems to have been in the Eastern Punjaub, and here was situated the "Brahmahvarta" or "Holy Land" of Menoo and the Pooranas, lying between the Drishadwatee and the Saraswatee, the modern Caggar and Sarsooty. This tract is of small extent, so the first Aryan colony cannot have been a large one; it also seems probable that these first immigrants were members of a religious rather than a political body. From this settlement the Aryans gradually extended eastwards, and by Menoo's time (900 B.C.), they had reached Ayodhyah, the modern Oudh. Two ruling clans subsequently came into prominent notice, called respectively the Solar and the Lunar. The Solar race had its principal habitation at Ayodhyah or Oudh, and from thence gradually extended east, west, and south. The Lunar race was still more enterprizing, and sent out colonies, in the east to Causy (Benares) and Magadhah (Behar); south to the Vindhyas and Vidarbha (Berar); west along the Nerbudda to Dwarca in Goozerat; and north-west to Hastinapoora (near the modern Delhi) and Muttra. Almost the whole of Northern India thus came under the influence of the Aryans. Until the time of Pataunjaly (about 200 B.C.) the Aryans were, according to the law-books, not permitted to travel beyond the limits of Aryavarta; which was bounded on the south by the Vindhyas, and thus excluded the Deccan and peninsula. But these restrictions were probably nominal, and they were afterwards withdrawn. There can be no doubt that the Aryans had penetrated in small numbers into Southern India long before this period. (3) *The Mahabharat.*—The chief scene of the Mahabharat is laid at Hastinapoora on the banks of the Ganges, about sixty miles to the north-east of the modern Delhi, and about three hundred miles east from the Indus. This city was a sort of Aryan outpost sent out from the original settlement in the Punjaub. The extent of the kingdom is doubtful, but was probably not very large. Notices of Southern India and the Deccan in the poem are vague. In a list of out-caste tribes are mentioned the Dravidas, a name which probably stands for the whole of peninsular India. In the Harivamsha, a section of the Mahabharat, mention is made of the Cholas and Keralas; but this portion of the poem is not so ancient as the remainder. Vidarbha or Berar is mentioned more than once in the Mahabharat; thus Roocmin king of that country is represented as offering his services first to the Pandavas, and then to the Cowravas in connection with the great war; and in the episode of Nala and Damayanty, the heroine is the daughter of the king of Vidarbha. Another episode related in the Mahabharat is that of Vishaya and Chandrahausa son of a Kerala king and ruler of Coontala; which is situated "in the furthest extremity of the Deccan, in the country where camphor is

75. THE EARLIEST KNOWN DRAVIDIAN DYNASTIES.—The occupants of the south of India were at the earliest period for which any records archæological or otherwise can be found, Dravidians ruled over by kings taken from the same stock as themselves. They were however to an extent which cannot be determined under the influence of Aryan settlers. It is almost certain that the only representatives of the Aryans were Brahmins. These were probably located in the larger towns alone and came little into contact with the agricultural population. The Sanscrit names given to places existed probably in the Sanscrit writings only of the settlers. And the same may be said without hesitation for the Sanscrit names given to the Dravidian rulers, and derived for the most part from the Solar, Lunar, and Agnicoola families of the north. The Brahmins were employed for their talents by the ruling families of the south. The tribes and dynasties of the Dravidians were extremely numerous. The Tamul country in the extreme south, to which the name of Dravida is alone strictly applicable, is traditionally divided between the three principal kingdoms or mandalams of Pandya, Chola, and Chera. The west coast developed an independence. On the north-east, the kings of Calinga at one time

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collected," that is to say some part of Southern India. This however is a late insertion. The only conclusion that can be drawn from the Mahabharat is that the Aryans had not yet advanced far into India, and up to the time of its composition had not gained any knowledge at all of Southern India. (4) *The Ramayana.*—The Ramayana describes the adventures of Rama, son of the king of Ayodhyah. The scene of many of these is laid in the Deccan and Southern India, and the whole poem shows a greater knowledge of this part of the country than was possessed at the time of the Bharata war. The chief interest of the poem centres in the abduction of Rama's wife Seeta by Ravana, the Racshasa king of Lunka or Ceylon, and her subsequent rescue by Rama who defeats and kills Ravana. At the time when Ravana carried off Seeta, Rama was at Panchavatee or Nassick at the source of the Godavery. On hearing the news he applied for help to Soogreeva king of Kishkindyah, situated on the Toongabudra near the modern Humpy or Vijianugger, whom he had formerly assisted in recovering his throne. Kishkindyah means the Eastern Ghauts. Soogreeva is represented as a monkey, and evidently ruled over one of the aboriginal tribes of the country. Rama then proceeded towards Ceylon accompanied by the monkey army, and on reaching the sea built a bridge by which to cross. This refers to the natural causeway called Adam's Bridge, which joins India to Ceylon but for shallow waters. Rama set up a lingam at Rameswaram, and crossed the bridge. After a brief warfare Ravana was defeated and killed, and Rama and Seeta returned to Ayodhyah. A point worthy of notice in the Ramayana is the mention of hermitages inhabited by Brahminical sages and scattered about the Deccan and Southern India; from which it will be seen that the Aryans extended their influence in this manner, by small and gradual encroachments and not by force of arms. (5) *The Raghoovamsha of Calidass.*—This is an epic poem, quite as old as the Christian era, describing incidents in the history of rulers of the solar line. In the 4th book a notice is given of a conquering tour made by Raghoo, great-grandfather of Rama. According to the story he passed from Oudh down the eastern coast to the country of the Pandyas, and then returned north by Kerala and the west coast; but he took possession of no part of the peninsular country. (6) *Rishies.*—Agastya is one of the most famous of the early Rishies. He hindered the growth of the Vindhya mountains, which were endeavouring to oppose the sun, and conquered the southern region by the force of his austerities. Agastya was the forerunner of an Aryan migration into the peninsula. Rama in his wanderings, as above mentioned, visited Agastya's hermitage in the Dandaca forest near Panchavatee Agastya was pre-eminently the தமிழ்முனி or 'Tamul sage,' and he obtained much influence at the court of Coolashekhara, according to tradition the first Pandyan king, for whose instruction he composed numerous elementary treatises. He is mythologically represented as identical with the star Canopus, and is worshipped near Cape Comorin under the title of Agasteeshwara. A tradition is current that he is still alive and resides on the mountain called 'Agastya's hill' (in Tamul பொதியம்) near Cape Comorin, in which rises the Tambrapurny the sacred river of Tinnevelly. Gowtama or Booddha has been adopted as a Rishy by the Brahmins. He performed penance on the island of Seringapatam in the Cauvery, but nothing definite is known about him. Canva holds the same place among Teloogoos as Agastya among Tamuls. He lived at the court of Andhraroya, the king in whose reign Sanscrit was first introduced into the Teloogoo country. Canva was the earliest writer on Teloogoo grammar, but his work is lost. The Rishy Dattatreya is regarded as an incarnation of Vishnoo. He was the patron of Caurtaveerya, king of the Heihayas, who was subsequently killed by Parshoorama for insulting the father of the latter, the sage Jamadagny. The Bababooden range in Mysore is sacred to Dattatreya. (7) *The Racshasas and Vaunaras.*—The Racshasas are continually mentioned in the Mahabharat and Ramayana as the enemies of the Aryans. They are represented as repulsive in appearance. They were the native races of India who opposed the advance of the Aryans. The ideas about them however are not unattended with confusion. Thus Ravana, the king of the Racshasa kingdom of Ceylon, is said to have been descended from a Brahmin sage. This joined to the fact that the opposition of the Racshasas to the Brahmins was always of a sectarian character, has caused some authorities to identify the Racshasas with the Booddhists of Ceylon. The Booddhists however were much later, and this is merely a theory ex post facto. Rama is represented as the great champion of the Brahmins against the Racshasas. In his war with Ravana he is aided by the Vaunaras or monkeys, who have their capital at Kishkindyah, as above mentioned. These monkeys were the aboriginal tribes of the Deccan, who assisted the Aryan invaders. The name of monkeys may have been given to them from their personal appearance. In one passage however their kingdom is called that of the "Vaunara dhwaja" or monkey-banner, so that the symbol may have developed the history. (8) *Parshoorama.*—Parshoorama was the son of the sage Jamadagny, and was called Parshoorama or "Rama with the axe" to distinguish him from the hero of the Ramayana. He was the enemy of the Cshatriyas, and cleared the earth of them twenty-one times. The origin of his hostility to the Cshatriyas is thus related. Caurtaveerya, a Cshatriya, and king of the Heihayas, visited the hermitage of Jamadagny in his absence, and was hospitably entertained by his wife, but on his departure carried off a sacrificial calf belonging to his host. For this offence Parshoorama pursued and killed Caurtaveerya, and in retaliation the sons of the latter killed Jamadagny, which caused Parshoorama to proclaim vengeance against the whole Cshatriya race. The tradition indicates the struggle for the supremacy between the Brahmins and the Cshatriyas. After having destroyed the Cshatriyas, Parshoorama retired to the Mahendra mountains. Tradition ascribes the origin of the country of Malabar to Parshoorama. According to one account he received it as a gift from Varoona; but according to another he drove back the ocean, and cut fissures in the ghauts with blows of his axe. (9) *State of Southern India as evidenced by the legends.*—The Rev. T. Foulkes in a review of the various legends sums up the information derivable from them to the following effect. They show, he says, that there has been a prevailing belief from very early times, which runs continuously through the most ancient writings, that the Deccan was the seat of well-ordered monarchical governments as far back, and therefore some time before, the time of Raghoo, the great-grandfather of Rama the hero of the Ramayana;—that the monarchy was hereditary and absolute; that purity of blood was maintained by intermarriages in the ruling houses; and that the rulers' daughters obtained their husbands, in some instances at least, by their own choice from among several rival candidates;—that the

ruled over the entire line of seaboard from the Kistna to the Ganges. The eastern coast was occupied by a Pallava kingdom, which was perhaps almost as ancient as the southern kingdoms. But to these principal kingdoms might be added a great number of smaller kingdoms, according to the direction taken by topographical inquiry. The inhabitants of the three mandalams spoke the ancient Tamul language; and employed a written character known now by the name of Vattezhoot, the origin of which is wrapped in mystery, but which did not proceed from Northern India. The most celebrated ancient Tamul literary works, as the Tolgauppiam and the Cooral, were written in Vattezhoot character. The West Coast nations spoke Malayalam, the North-East Coast nations spoke Teloogoo, and the inhabitants of the South Deccan spoke Canarese. These are forms of the Dravidian language later than Tamul[2].

76. The Pandyan kingdom as called by the Sanscrit writers, or the Paundy kingdom as called by the natives of the country, was the most prominent dynasty in the extreme south when the Aryans first made acquaintance with it. The Aryan

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Deccan of those days contained the kingdoms of Orissa, Calinga, Chola, and Pandya on its eastern side, and to the west of these the kingdoms of Vidarbha, Rishica, Matsya, Caushica, Andhra, Poondra, Mahishaca, Kerala, and some others;—that the kingdom of Calinga was divided into provinces of sufficient extent to admit of a treasonable combination being formed by some of them against their ruler; and that the latter had sufficient means to raise an army large enough to quell the rebellion;—that these kingdoms contained cities, towns, villages, towers, and citadels;—that some of the cities had wide streets, and some were fortified with walls and gateways;—that the capital cities had palaces of considerable size, with an upper storey approached by an external flight of steps, with dining-halls sufficiently large to entertain five hundred guests at a banquet, with wide state-rooms supported by pillars of gold and entered through doorways ornamented with jewels, besides private apartments;—that both the rulers' palaces and the citizens' houses had windows opening upon the public streets;—that there were eminent families in those kingdoms; and that some of the members of these held office at court which they could resign at pleasure; —that among the court officers was a Brahmin priest, whom the king could dismiss and reappoint at his pleasure, who performed the royal marriages, and who was entitled to give counsel to the king; and that Brahmins were employed as the king's state emissaries;—that the palaces contained large numbers of dancing-girls holding an official position, and an extensive establishment of servants; and that they were guarded by warders and watch-dogs;—that the rulers had large armies at their disposal using various kinds of weapons; and that the ruler of Calinga in particular had a considerable force of war-elephants, and that the cities were protected by garrisons of soldiers;—that the people cultivated fields and gardens, betel-vines, cocoanut topes, plantain gardens, vineyards, and spice groves; and they suffered from famines and droughts caused by the failure of rains;—that some of the people were occupied with merchandize and commerce; that salt and condiments, and other articles, were sold in the village shops; and that they used money in their transactions;—that their cooked food was served in vessels, and eaten off plantain leaves; and that they used condiments in their cookery, and drank wine both of the grape and of the cocoanut palm; —that they cultivated the arts of house-building and house-decoration, the art of the jeweller, and of coining money, and of working in metals, and other similar arts;—that they had learnt to train elephants for both domestic and martial uses;—that they employed their leisure in attending religious preachings and theatrical performances in large numbers, in which their rulers sometimes joined them; and that the ornamental grounds of the palace were available to them for their recreations;—that they were accustomed to invite each other to repasts, and had street-processions at their weddings; and that on great occasions they decorated the public streets, strewing the roads with branches of trees, and suspending banners above both for ornament and for protection from the sun; that they decorated their persons with garlands, pendent earrings, and jewels of gold; and their kings' ornaments contained a profusion of pearls and diamonds, and their festive dress included silk garments;—that in their marriages a religious service was performed by the family priest, which was followed by a domestic ceremony conducted by the assembled guests;—that, the intellectual progress of those days was marked by penalties inflicted on persons who attempted to corrupt the morals of the people; by the courtesies of personal intercourse and the amenities of hospitality; by more circumspect behaviour than usual in the presence of superiors; by self-sacrificing interpositions on the behalf of injured persons; by a sense of moral pollution from contact with objects which disgusted the religious feelings; by the composition, and the exhibition, and the appreciation of dramatical works; by public displays of religious oratory, and an extensive popular interest in listening to them;—that the religion of those days included, or consisted in, the worship of the devas, with Indra at their head, to whom a control over human affairs was attributed; in ceremonial sacrifices offered to Agny; in a regard for omens; in a belief in the present favour of the gods shown towards such virtues as filial piety, and their present vengeance upon notorious sins; and in a belief in future divine retribution for sin, in punitive transmigrations of souls, and in a purgatorial hell;—and, finally, that there were Brahmins in the Deccan; some of whom, dwelling in the midst of the world, were employed in state affairs as well as in religious offices; while others devoted themselves to an ascetic life, part dwelling in solitary hermitages in the forests which skirted the limits of civilized life, and part forming themselves into extensive monastic communities, which were connected with similar religious bodies in North India, and from which they proceeded on preaching itinerations throughout the country, receiving alms from the people.

[2] SKETCH ACCOUNT OF THE ANCIENT HINDOO DYNASTIES OF NORTHERN INDIA.—*Introduction.*—Seven principal states of Northern India may be mentioned, namely Hastinapoora, Muttra, Paunchaula, Benares, Magadhah, Bengal, and Cosala; and ten lesser ones, Malwah, Goozerat, Canouj, Delhi, Ajmeer, Mewaur, Jessulmeer, Jeypore, Scinde, and Cashmeer. (2) *Hastinapoora.*—This kingdom was situated to the north of the modern Delhi, and the capital city was about 60 miles distant from that place. The chief scene of the Mahabharat is laid in Hastinapoora. (3) *Muttra.*—This was an ancient religious city, which at the time of Mahmood of Ghuznee, who conquered the state in 1017 A.D., was filled with temples and shrines. It was the birth-place of Krishna. (4) *Paunchaula.*—This is only known by its name. (5) *Benares.*—Causy or Benares was a kingdom of greater power than either of those previously mentioned. The kings bore the title of Pahlah. The city is said to have been founded by Causy, a king of the Aryan lunar race. It was subdued by the king of Canouj about the end of the eleventh century. (6) *Magadhah.*—This is the modern Behar. Its capital was Pautalipootra or Patna, which was founded by Ajauta Shatroo, who was contemporaneous with Booddha. The Booddhist kings of this state had extensive authority. They belonged it is stated for many years to the Aryan Cshatriya caste, till a native of the country named Chundragoopta (or with the Greeks Sandracottus) murdered the king, and assumed the sovereignty. He was reigning when Seleucus, the general of Alexander, invaded India. Chundragoopta opposed Seleucus; apparently with success, for the treaty that was made was much in favor of the Hindoos. Arrian also mentions King Asoca, the third in descent from Chundragoopta, calling his subjects the Prasii (which will mean the Sanscrit Prauchyas). Asoca was reigning about 260 B.C. He was a particular champion of Booddhism and the author of the well-known edicts cut in rocks proclaiming the doctrines of that faith. The family of the Mowrya

visitors connected the name with the dynasty of the Pandoos of Hastinapoora near Delhi in error. Both it and the Porny river called by the Aryans Tambrapurny are probably derived from Tamul words meaning toddy or the juice of the palm. In a later edition of the Mahabharat, it is stated that Arjoona, one of the five Pandava brothers, married a daughter of the Pandya king in the course of his wanderings; but this should be ascribed to poetic license. When the Dravidas are mentioned as distinct from the Cholas, as they sometimes are in the Mahabharat and the Pooranas, it may be assumed that the Pandyas are indicated. The earliest direct notice of the Paundy kingdom comes from the Ceylonese Mahavanso, from which it appears that Vijaya, the Aryan, after first marrying a yacshee or demoness, that is to say a Singhalese of the country, obtained in marriage the daughter of the Paundy ruler of the opposite coast[3]. The date given by the Mahavanso for Vijaya's arrival in Ceylon is 543 B.C. Northern Ceylon was then probably tributary to the Paundy king. Vijaya himself gave as yearly tribute two lakhs worth of chunks and pearls. The kingdom is mentioned by the name 'Pauda' in Asoca's

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kings reigned over Magadhah for ten generations, and were succeeded in turn by the Sangas, the Canwas, and the Andhras. After this the history becomes too confused to be detailed. The Andhras will be mentioned in a later note. (7) *Bengal.*—The Mahabharat mentions a king of this country as allied to Magadhah. Some rock-inscriptions go so far as to state that supreme authority over the whole of India was enjoyed by its monarchs. The dynasty which had most influence in the Bengal kingdom was, like that of Benares, termed Pahlah. This kingdom included Mitilah, the modern Tirhoot. Much information, though of questionable accuracy, concerning the kings of Bengal, is to be obtained from the work known as the 'Ayeen Acbaree,' wherein the names of five dynasties are given, with the title of Pahlah. The kingdom of Bengal was destroyed by the Mahomedans about A.D. 1203. (8) *Cosala.*—This kingdom included Oudh, and had for its capital Ayodhyah itself. The chief scene of the Ramayana is laid in this city. Other important towns were Cooshapoora (on the Goomty near Sultanpore), Iraswatee, Gandha, and Capilavast the birth-place of Booddha. (9) *The minor states.*—It is from the name of one of the kings of the small and unimportant state of Malwah that historians are enabled to fix accurately the first reliable date in Indian history. This was the celebrated Vicramaditya, who reigned at Oojjein in the year 58 B.C. The Hindoo calendar bears the date of the era of Vicramaditya to this day. Another celebrated name is found in this kingdom, that of the Rajah Bhojah, whose memory is cherished as one of the greatest heroes of early Indian history, and who died in 1070 A.D. The monarchy was extinguished by the Mahomedans in 1231 A.D. Goozerat was established, according to legend, by Krishna; but the earliest known fact is that in the second century of the present era there was a race of kings established at Ballabhy, terminating in 579 A.D. with Nourshirwan. The kings were Rajpoots, who conquered Mewaur from the monarchs of Malwah. In 746 A.D. the Chowra dynasty of Goozerat succeeded in establishing their kingdom at Pattan, and became the greatest power of their time in India. The last Chowra king died in 931 A.D., and was succeeded by the renowned Salonca, who conquered the whole of Malwah. His descendants, bearing the same name, reigned in succession till the destruction of the kingdom by the Mahomedans in 1297 A.D. One of the principal towns was Somnaut. Canouj was one of the wealthiest states in Hindostan. Its riches, when Mahmood of Ghuznee seized the city in 1017 A.D., are mentioned as of fabulous amount. On account of the great beauty of its temples and palaces Mahmood refrained from inflicting any injury; but his followers sacked the city, and destroyed the monarchy in 1193 A.D. The reigning sovereign Sivajee then fled to Jodhpore in Marwar, where he established a Rajpoot state, now one of the wealthiest in India. Delhi was in early times very unimportant. It fell to Visal king of Ajmeer in 1050 A.D. Ajmeer was equally unimportant. This state, with its dependent, Delhi, was overthrown by the Mussalmans in 1192 A.D. Mewaur, Jessulmeer, and Jeypore, are still existing; the Mewaur family being one of the oldest in India. Scinde was an independent sovereignty in the time of Alexander B.C. 325. It was afterwards divided, and again reunited. The Mahomedans invaded its territories in 711 A.D., but were beaten back by the Rajpoot leader at the head of the Soomaira tribe. It finally fell to the Mahomedans in 1205 A.D. when Shahaub ood deen Ghory, the greatest conqueror of the age, subjugated the country. Cashmeer has a history so confused, and so unconnected with Indian events, that it is useless to enter into it. It was conquered by Mahmood of Ghuznee in 1015 A.D.

[3] Sketch of the Sequel to the History of Ceylon in connection with Southern India.—*Conquest of Ceylon by Vijaya.*—In B.C. 543, Vijaya, the son of one of the petty sovereigns in the valley of the Ganges, landed with a few followers in the vicinity of the modern Putlam, on the west coast of Ceylon. Here he married the daughter of one of the native chiefs, and having made himself master of the island by her influence he established his capital at Tamana Newara, and founded a dynasty which ruled in Ceylon for nearly eight centuries. After ascending the throne Vijaya repudiated his Singhalese wife, and married an Indian, the daughter of the ruler of the Paundy country on the opposite coast of the Madura country. (2) *Vijaya's successors and establishment of Booddhism in Ceylon.*—Vijaya was succeeded in 504 by his nephew Pandoovassa, a name which also points to a connection with the Paundy kingdom. This king founded the city of Anooraudhapoora. The next king worthy of notice was Devanipiatissa, in whose reign Booddhism became the established religion of Ceylon. Devanipiatissa having in 307 B.C. sent ambassadors with gifts to Asoca, king of Magadhah, the latter returned a similar recognition, and sent also his son Mahindo, a Booddhist priest, who speedily made converts of the Singhalese. Mahindo's sister Sanghamitta followed him to Ceylon, and assisted him in spreading the Booddhist religion. Asoca sent to Ceylon a branch of the sacred Bo tree in 289 B.C. This was planted by king Devanipiatissa at Anooraudhapoora, where, after the lapse of more than 2,000 years, it still continues to flourish and to be worshipped by Booddhist nations. (3) *Tamul usurpations.*—In B.C. 237, a body of Malabars or Tamuls who had been taken into the service of the king of Ceylon as mercenaries, obtained possession of the supreme power, and ruled the kingdom for more than twenty years, when they were in their turn overthrown. In B.C. 205 Elaula, a native of Malabar, invaded Ceylon from the Chola country, killed the reigning king Asaila, and ruled the kingdom for forty years. Elaula was finally defeated and killed about 161 B.C. by Dootoogeimoonoo, a member of the Ceylon royal family. In B.C. 103, the reigning king Walagambauhoo was expelled from his throne by a Tamul usurpation; in 89 B.C., however, he was restored. In A.D. 110, the Cholas again invaded Ceylon, and carried away 12,000 Singhalese prisoners. In 113 this outrage was avenged by Gajahbauhoo, king of Ceylon, who invaded the Chola kingdom, and brought back not only the rescued Singhalese captives, but also a large number of prisoners. (4) *The Mahawanse succeeded by the Sooloowanse.*—In A.D. 301 died Maha Sen, the last king of the 'Mahawanse' or 'superior dynasty,' who were all direct descendants of Vijaya; and the throne was from this time occupied by the 'Sooloowanse' or 'inferior race' of less pure descent, who continued to hold the government down to the occupation of the island by Europeans in the beginning of the sixteenth century. In A.D. 311 when Kisty Shreemeghavarna was king, the sacred tooth of Booddha was brought to Ceylon from India by a princess of Calinga. (5) *Further Tamul invasions.*—About 433 A.D., Tamul chiefs again invaded the island and usurped the government, but were expelled in 459 A.D. by Dhautoo Sena. Subsequently the Tamuls resorted in large numbers to Ceylon and were often employed by the leaders in civil commotions to act against the royal forces. Dhautoo Sena was dethroned and

inscriptions, which are dated 260 B.C., together with the Cholas under the name of Chodas and the Chera ruler under the name of Keralapootra; but only the names are enumerated. Megasthenes, who was sent in 302 B.C. as ambassador from the court of Seleucus Nicator of Babylon, to Chundragoopta, king of Pautalipootra, in connection with the affairs of the Indian empire, recorded the existence of a kingdom called πανδαία in the extreme south. He translated a Hindoo legend on the subject of this country by saying that the Indian Hercules had a daughter called Pandaea whom he made its ruler. He spoke of pearls as the chief commodity of the country. By the Indian Hercules may be understood Shiva, who by that time had been assigned by Brahminical writers at any rate as the prevailing deity of the south. In the reference to a female ruler, allusion is made to the polyandric system still remaining on the West Coast, under which inheritance is in the female line and the female members of ruling families assume a special dignity. Strabo in 20 A.D. gives an account of an embassy sent by the Pandyan ruler, probably from the West Coast, to the Emperor Augustus. Golden aurei of that emperor's coinage have been found on the West Coast. Pliny later in A.D. 77 calls these people the Pandae, and says that they were the only race in India ruled by women. Speaking of a portion of the West Coast, he states that it was then under the rule of the βασιλεὺς πανδίων 'far from his inland emporium at Modoura.' The Periplus of the Erythraean sea about 80 A.D. makes a similar remark, assigning Travancore, south of Alleppey at least, to Pandya. Though the people of this kingdom were called Paundies, the proper title of their ruler was not Pandyan but Mauran. According

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beheaded by his eldest son Cansyapa, in 478 A.D. His younger son Mogallauna, after the murder of his father, fled for refuge to the coast of India, and subsequently gained possession of the throne of Ceylon by the aid of a force which he collected in Tinnevelly. During the succession of civil wars which distracted Ceylon in the sixth and seventh centuries, each claimant in turn took refuge in Southern India, and Tamul mercenaries from Pandya and Chola enrolled themselves indifferently under any leader, and were mainly instrumental in the deposition or restoration of the successive kings. Hwen Thsang, the Chinese traveller, when he visited Canjy or Conjeeveram in 639 A.D., encountered there numbers of exiles who had fled from civil commotions in Ceylon. From the seventh till the eleventh century, the Malabars or Tamuls continued to exercise great power in Ceylon. They filled every office, including that of prime minister, and decided the claims of rival candidates for the crown, and at length, owing to their encroachments, the king was forced to leave Anooraudhapoora, and take up his abode at Pollannarrua, which eventually became the capital of the kingdom. In A.D. 140 the king of Pandya overran the north of Ceylon, and forced the king to pay a heavy ransom. Soon after, the king of Ceylon retaliated by attacking Pandya in support of a son of the reigning king with an army consisting of Tamuls, and plundered Madura. In 954 A.D. the Ceylon king assisted the Pandyas against the Cholas, but the latter were successful, and the king of Pandya was forced to take refuge in Ceylon, whence he was ultimately expelled for conspiracy. In 990 A.D. the king of Chola invaded Ceylon but was repulsed. In 997 Mahindo III married a Calinga princess, and this led to so great an increase in the number of Indian Dravidians in Ceylon that they gained a complete ascendency over the native inhabitants. In 1023 A.D. the Cholas again invaded Ceylon, carried the king captive to India, and established a Tamul viceroy at Pollannarrua, who held possession of the island for nearly thirty years, the mountainous territory of Rohana being the only portion of the country left to the native kings. (6) *The Tamuls expelled from Ceylon.*—In 1071 Vijayabauhoo became king of Rohana, and finally succeeded in conquering the Tamuls and uniting the whole island under his rule. He was succeeded by his son Paraucramabauhoo, who consolidated the kingdom, re-established Booddhism which had fallen greatly into decay, and ruled in great glory. This king conquered Pandya and Chola and rendered their sovereigns his tributaries. His reign is the most illustrious in the annals of Ceylon, and also the last which has any pretensions. (7) *The Tamuls again conquer Ceylon.*—In 1211 the kingdom was reduced to such weakness by civil wars that a body of Tamuls from Calinga conquered it, and Maugha their leader became king. In 1235 Vijayabauhoo III recovered a portion of his kingdom, and established himself in Maya. In 1266 the Indians were further dislodged, but nothing permanent was effected against them. From the beginning of the thirteenth century to the extinction of the Singhalese dynasty in the eighteenth, the island was never entirely freed from the presence of the Tamuls, and the royal line also continually intermarried with the Chola and Pandya kings. (8) *The Portuguese in Ceylon.*—This was the condition of Ceylon when the Portuguese arrived there in 1505 A.D. Their first visit was only temporary, but in 1517 they appeared again with a fleet, built a fort at Colombo, and finally forced the king of Ceylon to acknowledge himself a vassal of Portugal, and to pay an annual tribute of cinnamon, rubies, sapphires, and elephants. Hostilities however soon recommenced, and continued during the whole period of the Portuguese occupation of the island. In 1597 died Don Juan Dharmapaula, who had been baptized by the Portuguese, and had afterwards obtained the throne of Ceylon. He bequeathed his dominions by will to Philip II, by which act the Portuguese acquired their title to the sovereignty of the island. (9) *The Dutch and French in Ceylon.*—The Dutch appeared on the scene in 1602, and negotiated an alliance with the king of Candy. A formal treaty was concluded in 1609. The Dutch finally united with the native king to expel the Portuguese from Ceylon, and war commenced in 1638, terminating twenty years later in the retirement of the Portuguese from the island. In 1672 a French squadron appeared on the coast, and took possession of Trincomalee, but soon retreated again. (10) *First appearance of the English in Ceylon.*—The first Englishman who visited Ceylon was Ralph Fitch, who landed at Colombo in 1589. In 1592 Lancaster touched at Ceylon, on his way home from his unfortunate expedition. In 1664 Sir Edward Winter sent an embassy from the Madras Government to Candy, for the release of some English prisoners, but this was unsuccessful. In 1763 the Governor of Madras sent an envoy to Candy to propose an amicable treaty with the king, but no further steps were taken. In 1782, during the war between England and Holland, Trincomalee was occupied by a British force, but restored to the Dutch the following year. (11) *Possession taken of the island by the English.*—In August 1795 an expedition from Madras landed at Trincomalee, which was soon captured, together with Jaffna and Calpentyn. In 1796 Colombo capitulated, and Ceylon came into the possession of the English, the government being confided to the Governor and Council of Madras. In 1797 the natives revolted, and were not subdued without much trouble. The island was then taken out of the hands of the East India Company, to whom it had been transferred at its capture, and became a colony of the Crown, the Governor being under the orders of the Governor-General of India, an arrangement which continued till Ceylon was incorporated with the British dominions by the treaty of Amiens, in 1802. In April 1802, several merchants, subjects of the British Government, were seized and maltreated by the king of Candy, in consequence of which a British force marched upon Candy, which was occupied in February 1803. (12) *Massacre of English at Candy, and final conquest of Ceylon.*—In June of the

to Tamul literature[4] the boundaries of the Pandya kingdom were as follows. On the north the Poodoocottah Vellaur falling into the sea south of Point Calimere; on the south Cape Comorin; on the east the sea (that is to say the Gulf of Manaar and Palks Strait); on the west according to some authorities 'the great plain' or peroovely, according to others the town of Vaunausy, and according to others the great pass or peroovazhy. The identification of peroovely, Vaunausy and peroovazhy is not yet accomplished. Nor is it possible to say to what period this description of the poets refers. The most ancient capital of the Pandya country was Korkay (the *κόλχοι* of the Periplus) at the mouth of the Tambrapurny river. Korkay was the seat of government in the time of Vijaya. It was esteemed even by the Greeks several centuries later as the first port in Southern India, and they named from it the *κόλπος κολχικός* or Gulf of Manaar. As the point where the more modern Aryan and Grecian civilizations each in turn met the ancient Dravidian civilization, it is a place second in interest to none in India. It is now represented in name by an insignificant village five miles from the coast, but excavations in the neighbourhood show the remains of a once extensive area of human habitation. Even when Korkay being left inland owing to the deposits of the Tambrapurny river gave place to Cauyal, the latter port nearly monopolized the trade between Southern India and China and Arabia. Under the influence of modern coast changes the centre of commerce has again shifted, but only slightly more north to Tuticorin. The chief industry of Korkay was probably the pearl-fishery, and its chief commerce the export of rice; two causes sufficient to collect an important

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same year the English troops at Candy were attacked by the native king, forced to capitulate, and massacred, and a general insurrection ensued, without much practical result. In 1814 the king of Candy, whose reign had been one of continual cruelty, seized a party of native merchants, British subjects, and mutilated them. War was declared in January 1815, and Candy was soon captured by the English, the king being sent a prisoner to Vellore in the Madras Presidency, where he died in 1832. Finally in March a convention of the chiefs was assembled at Candy, and a treaty concluded, formally deposing the king, and vesting his dominions in the British Crown; the preservation of the old form of government of Candy, and of the customs, law, and religion of the people being guaranteed. In 1817 the whole country was again in insurrection, and the rebels were not subdued till the end of the following year, since which period the island has been in a tranquil state.

[4] NATIVE AUTHORITIES REGARDING THE PAUNDY KINGDOM.—*Introduction.*—The following are maxims from Tamul poetry. The principal town or metropolis of the Paundy country is Madura. The principal mountain is the great hill called Pothiya. The name of the king's horse is Kanavattam. The chief rivers are the Tambravanny and Vaigavaty. The king's distinctive garland is made from flowers of the veppa tree. The device of his banner is a fish. His descent is from the lunar pedigree. (2) *Boundary stanza by Auveiyaur.*—வெள்ளாற்றின்றெற்குமேற்குப்பெருவெளியாம் தெள்ளாம்புனற்கன்னிதெற்காகும்உள்ளான் ஆய்ந்தகடற்கிழக்கன்பத்தறுகாதம்பாண்டிநாட்டெல்லைப்பதி. "South of the river Vellaur. On the west is Peroovely. Clear water Kanny is on the south. The sea sought by the gull is on the east. Fifty-six cauthams are the extent of the Paundy country. So enter." The Vellaur passes through Poodoocottah, and enters the sea south of Point Calimere. Peroovely, or the great plain, is not understood, for on the west are mountains. Kanny is the Sanscrit Cunya Coomaury or Cape Comorin. (3) *Boundary stanza by Vembatooraur.*—வெள்ளாற்றின்றெற்குவெள்குமரிக்கேவடக்குதெள்ளுகடலின்மெற்குதேவர்தொழும்உள்ளமகிழ்வன்ஞசிடேருரதின்கிழக்குமாறனெல்லையன்பத்தறுகாதமாம். "South of the river Vellaur. North of the white Coomary. West of the limpid sea. East of the large town Vannausy, worshipped by deities, mind-rejoicing. Mauran's limit is fifty-six cautham." Vannausy has not been identified. Mauran is the royal Paundy title. (4) *Boundary stanza by Poogazhendy, a poet retained in the court of the Paundy king.*—வெள்ளாற்றின்றெற்காகுமேற்குப்பேருவெளியாம்தெள்ளார்புனற்குமரிதெற்கெல்கைவிள்ளாகுநாட்டுக்குநாயகனூர்நற்புனவைநாதனூர்கூட்டத்திருமதின்கிட்கூறு. It is south of the river Vellaur. On the west is Peroovely. Coomary full of clearness is the southern boundary. To this wide land the sacred rampart of the assembly of the Naick, the excellent ruler of Poonavay, lies east. So proclaim it." The Naick is the generic term for a Tamul ruler. Poonavay has not yet been identified. (5) *Boundary stanza by Cumban.*—வெள்ளாறதுவடக்காமேற்குப்பெருவழியாம்தெள்ளார்புனற்கன்னிதெற்காகும்உள்ளாரஆண்டகடல்கிழக்காமைம்பத்தறுகாதம்பாண்டிநாட்டெல்லைப்பதி. "Vellaur is on the north. On the west is the great pass. Kanny of the clear waters is on the south. The sea ruled by friends is on the east. Fifty-six cautham is the extent of the Paundy country. So enter." The great pass is some pass into Travancore. The meaning of உள்ளார் is not clear. The Gulf of Manaar is indicated, which translated means the sea of enemies. (6) *Eulogistic stanzas by two brothers named Irattiyar.*—குறுமுனிவன்கொல்லியிலோதமிழ்பிறந்ததம்மானேஒப்பரியதிருவிளையாட்டுறையூரோவம்மானேதிருநெடுமாலவதாரஞ்சிறுபுலியோவம்மானேசிவன்முடிமேலணிவதவுஞ்செங்கதிரோவம்மானேகரையழிந்தகாவிரியோவுரைதெரிந்ததம்மானேகடிப்பகைக்குவேம்போகடுக்கையோவம்மானேபரவைபடிந்ததுஞ்சோழன்பதந்தனிலோவம்மானேபராக்கிரமபாண்டியன்புகழைப்பகரொளிதோவம்மானே. "Did the Tamul of the dwarf-moony arise in Colly, O lady? Were the incomparable sacred sports at Warriore, O lady? Was the divine Nedoomaul incarnate as a tiger's cub, O lady? Is what Shiva binds on his head the red ray, O lady? Did the Cauvery of which the banks waste know of writing, O lady? In enmity to demons does the margosa tree prevail or the cassia tree, O lady? Did the sea submit at the feet of the Cholan, O lady? Is it an easy thing to speak the praise of the heroic Pandion, O lady?" Stanzas are often addressed to women. These remarks are in rivalry to Chola, the stanzas relating to which should be consulted. The dwarf-moony is Agastya. Colly is the Kollamullays in Salem. But Agastya lived on Pothiya. The 'sacred sports' are Shiva's. Warriore was the Chola capital. Nedoomaul is Vishnoo, and appears to have been favoured by the Cholans. Shiva wears on his head not the red sun, but the crescent moon. The Veigay, but not the Cauvery, transported on its waves up-stream a sacred writing, in the time of the hunch-back Coon Pandyan. The Pandya king wore the margosa garland, and the Cholan the cassia garland. When the Dravidian warriors put on a margosa garland, it is a vow to conquer or die. The sea encroaching up to Madura was repulsed by the Pandyan king. These lines strange though they may seem to the western mind show the pregnant Dravidian style, and the original has a certain intrinsic beauty.

oriental population. The migratory habits of the pearl-oyster have rendered the South Indian fisheries precarious, and the failure of these may have led to the abandonment of the coast as the seat of the Pandyan Government. After Korkay there is some evidence that a place called in Sanscrit Calyaunapoora was made the capital; if so, its site cannot be identified. After this at any rate Madura (μόδουρα in the Greek) became the chief city, having been founded possibly about the end of the fourth century B.C. The site of even this city has probably been shifted more than once. Thus old Madura is on the north bank of the Veigay, and about a mile from the present city which is on the south bank. A few miles to the east are the ruins of another ancient city, Manalore, which it is supposed was also at one time the capital. The device of the house of Pandya was a fish. The Tamul legend is that Pandya, Chera, and Chola were founded by three brothers, who at first lived together at Korkay, near the mouth of the Tambrapurny, and afterwards separated and founded different kingdoms. No legend gives the name of a king, but it is the Dravidian custom to call rulers by their title and not by any personal name. The Stalapoorana or local chronicle of Madura gives a list of 73 kings of an old and original Pandyan dynasty with information belonging thereto. The names are all Sanscrit, and the natives of the country have had no share in the preparation of these documents. If any distinction is to be drawn between the titles Mauran and Pandyan, it is that the latter began to be used after Madura had become the seat of government. The last ruler of the old dynasty was known to the Tamuls as Coon or the hunchback. For the purposes of the history of the earliest period it is sufficient to state that the Pandyans were constantly at war with the Cholas lying on their north-eastern border, but were usually at peace with their neighbours to the west; facts for which the geography of the country will account. In the early ages of the Christian era again they formed an alliance with the Cholas, which lasted for a while, till hostilities were resumed. The Pandyans retained the old Vattezhoot written character till a very late period, probably till the eleventh century of this era[5]. One of the oldest segments of the Tamul race

[5] SKETCH OF THE SEQUEL TO THE HISTORY OF MADURA—*First period.*—Native authorities give two different lists of Pandyan kings, the first containing seventy-three names and the second forty-one. These lists are however unauthenticated, and therefore of not much use for historical purposes. Little is known of the early kings except their names. Apparently they were continually at war with Chola, and occasionally with Chera, with varying success. After these Pandyan kings, and probably at the same time as many of them, the country was held by foreign rulers from the north. Lastly came the Naicks, a military caste from Vijianugger. (2) *First Pandyan list; the flood.*—The forty-fifth king in the first list is called Keertivibhooshana. A native legend relates that in his time a deluge swept away the population, after which Shiva recreated all castes and nations just as before, the newly created king of Madura being in all respects similar to the former one. The first king after the flood was Vamshashekhara. (3) *Vamshashekhara and the Madura College.*—At whatever period Vamshashekhara's accession may have occurred, it was the result of some political disorganization of the Pandya kingdom, as the different authorities concur in considering him as the founder of a new dynasty. He is represented as having built the fort and a palace of Madura, as well as various temples and public buildings, and as having restored or enlarged the ancient city. The reign of Vamshashekhara was also distinguished by an event which led to important consequences to the literature of the peninsula. This was the foundation of a college at Madura for the cultivation of literature and the Tamul language; it was completed in the time of the next prince Vamshachoodaumany. This college was not a teaching institution, but an association of poets, who lent their imprimatur to works they considered worthy of it, by giving the writer a place on their board. The seat on which they sat was represented as a miraculous diamond bench capable of expanding and contracting so as to hold exactly the number sitting on it. 'Sanga,' the Sanscrit name for this college, has the same meaning as the Latin 'collegium,' namely an association or society of learned men. Tradition says that there were three such colleges at Madura at different times, and that Tiroovulloovar or 'holy pariah' priest, the celebrated author of the Cooral, was a member of the last of these. (4) *Coon Pandyan.*—Coon Pandyan, also called Coobja the Sanscrit equivalent for the Tamul Coon or hunch-back, is the seventy-third name in the first list of kings. He destroyed Chola and burnt Tanjore and Warriore. His son Veera Pandya Chola reigned in Chola, and was the last of the old dynasty of Pandyans. (5) *Contest between Jeinas and Sheivas in Coon Pandyan's reign.*—Coon Pandya was married to Vaniteshwary, the daughter of the Chola Rajah, who was a devout worshipper of Shiva. She invited Gnaunasambandhamoorty, a famous teacher of her sect, to Madura, and an opportunity soon occurred of gaining for him the countenance of the Rajah Coon, who was attacked by a fever which resisted the drugs and spells of his Jeina priests. Gnaunasambandhamoorty undertook his cure, engaging to make his success a test of the superiority of his religion. His opponents accepted the challenge; and the medical skill of the Sheiva surpassing their expectations, they found themselves vanquished. The Shamanar were persecuted and hanged or banished to the number of eight thousand. Coon Pandyan, who before his conversion was deformed, as his name implies, no sooner received the initiatory mantra of the Sheiva faith than he became erect and straight, and thenceforth assumed the name of Soondra, the 'handsome' Pandyan. (6) *Second Pandyan list.*—During the ninth and tenth centuries the Chola kings of Tanjore extended their power through a great portion of the peninsula, and overshadowed the ancient splendour of the Pandya kingdom. About the end of the tenth century the town of Madura was consumed by fire, the king and all his family perished, and the old Pandya dynasty was destroyed. An interregnum then occurred, the length of which is not ascertained; but in any case the forty-one Pandyan kings of the second list were probably puppets. (7) *Vettivergay.*—About the year 1040 A.D. Athiveerarama Pandiyan reigned. He was a literary prince and some of his aphorisms are in common circulation in a small collection called Vettivergay. (8) *The Ballaulas.*—A long anarchy ensued, during which, as appears by inscriptions, the Ballaula race of Mysore superseded Chola influence, and the kings of Madura became their tributaries. (9) *Commencement of the Madura Naick rule.*—The first Mahomedan army that crossed the Kistna was led by Caufoor or Malik Naib in 1311, who carried his conquests as far as Rameswaram. In 1374 Moojauhid Shah overran the countries between Vijianugger and Cape Comorin. These invasions swept down the Mysore dynasty. The Mahomedans did not remain in the south; and shortly after the middle of the fourteenth century the Pandya

are the Marava race, who once boasted a dynasty of their own, north of the Veigay river and interposed between the Paundies and the Cholans in the neighbourhood of the coast. In the earliest times they were tributary to Pandya[6 & 7].

kingdom became tributary to the Royel of Vijianugger. It was ruled by descendants of the old Tamul race, whose authority was much slighted by the petty independent chiefs, ancestors of many of the present poligars. After sixteen kings had thus ingloriously reigned, the 17th, Chunder Coomauran, engaged in a war with the Chola king of Tanjore who also was a tributary of Vijianugger. The Madura prince applied to his superior Krishna Royel of Vijianugger for aid, and Nagama Naick was sent to his assistance. He soon defeated the Chola force, but himself assumed the independent government of Madura. This usurpation was not recognised by Krishna Royel, but on Nagama's death he permitted the installation of his son Vishwanautha Naick as king, and thus commenced the dynasty of the Madura Naicks. This was about A.D. 1559. Vishwanautha Naick soon put forth his energy; nor was he likely to be disturbed by the king of Vijianugger who was too much occupied with his rivalry with the Deccany dynasty of Beejapore. Vishwanautha enforced the cession of Trichinopoly from the Chola Rajah, and built a fort there. He then directed his attention to the Tinnevelly district, and distributed the depopulated portions to his northern followers of the Tottiya caste. These were the progenitors of many of the poligars. He died about A.D. 1563. After him his son Periya Krishnappa Naick extended his authority to the south and enlarged Tinnevelly. He died about A.D. 1573. The next king was Periya Veerappa Naick. He founded various temples and endowed religious establishments. He died about A.D. 1595. Periya Veerappanaick's three sons followed him in succession and then a nephew named Moottookrishnappanaick, in whose reign the independence of the Ramnaud chief was acknowledged and the title Shetoopaty bestowed. Moottookrishnappanaick died about A.D. 1609 and was succeeded by Veerappanaick, in whose time Trichinopoly was first attached to Madura, the Tanjore king having exchanged it for Vullam. (9) *Trimal Naick and his immediate successors.*—He died about A.D. 1623 and was succeeded by the celebrated Trimal Naick whose reign was long and flourishing. The public edifices erected during his sovereignty furnish proofs of his wealth and magnificence. Although the fortress of Trichinopoly was the chief stronghold at that time of the kingdom of Madura, the city of Madura itself appears to have been the favourite of Trimal Naick. The reign of this king lasted till about A.D. 1660 or 1662, and it must have been in the early period of his sovereignty (about 1624) that the Portuguese Jesuits under Robert de Nobili founded their mission; being supported by the college " De propaganda fide " of Rome founded in 1622 by Pope Gregory XV. Trimal Naick was succeeded by his son Veerappan, a prince of an effeminate and indolent disposition, who accordingly was unable to repress the incursions of the Mysoreans. The latter took several places in the western districts during this reign from the Madura kingdom. Chokkanauthanaick succeeded his father about A.D. 1670; he was a prince of some conduct and enterprise, and rendered himself formidable to all his neighbours. He first turned his arms against Vijaya Raghava, king of Tanjore; whom he defeated and slew, taking prisoner his ally Soora Deva the Shetoopaty, and assisting Kizhavan, the cousin of the captive prince, to become master of Ramnaud. He then invaded the kingdom of Mysore, hoping to reduce it under his authority, but the events of the war were the reverse of his expectations and inflicted severe losses on the government of Madura. Chengamal Dass, the son of the late king of Tanjore, had made his escape from the fort of Trichinopoly, where he had been confined. This was effected with the aid of Roostam Khan, a Mahomedan chief, who had been a favourite of Chokkanautha, and who commanded the garrison under the orders of Roodra Naick, the brother of Chokkanautha; an extravagant and indolent prince, who lavished on his personal gratifications the sums destined for the pay of the troops. Taking advantage of their discontent, Roostam Khan liberated himself from all control, and made himself master of Trichinopoly. The Rajah of Mysore took the part of Chengamal Dass and invaded Madura. In this state, Chokkanautha found some difficulty in preserving the shadow of his former power, and was even kept a prisoner by Roostam Khan. His enemies retained the superiority for a considerable period, the Mysoreans occupying even the capital Madura for three years. It was probably to purchase their retreat that Chokkanautha ceded to Mysore the districts of Erode and Dharaupooram. Having thus got rid of one of his most powerful enemies, and being vigorously reinforced by Kizhavan Shetoopaty of Ramnaud, he next dispersed the troops of Chengamal Dass, and re-occupied Tanjore about A.D. 1675. He finally recovered Trichinopoly from Roostam Khan, who lost his life in the defence; and Chokkanautha remained in the tranquil possession of his patrimonial possessions. He soon however lost his acquisitions in Tanjore, the fugitive prince, Chengamal Dass, having recourse to the Mahratta chief Yeckojee, half-brother of Sivajee, for assistance. Yeckojee was then the commandant of Bangalore, as an officer of the Beejapore government. He marched to the southward, expelled the Madura forces, and finally seized on Tanjore for himself. Chokkanauthanaick died about A.D. 1687, and was succeeded by his son, Runga Krishna Moottoo Veerappan, who died about 1694, leaving his wife pregnant with a son, afterwards named Vijaya Runga Chokkanauthanaick. During his minority the regency was exercised by Mangammaul, the grandmother (widow of Chokkanauthanaick), a woman of great talent, and spirit. One account describes her as preserving her authority until 1712, but another states that, when the prince was thirteen years of age, the commander of the forces, Custoory Rangayya, excited an opposition to her which ended in his seizing the reins of government, and in her imprisonment until her death, about A.D. 1725. The reign of Vijaya Runga Chokkanauthanaick was not distinguished by any remarkable event. He died in 1731, leaving no child; he was, therefore, succeeded by his wife, Meenautchee Ammaul, who adopted Vijaya Coomauran, the son of Bhangaur Trimal Naick, a descendant in a direct line from a younger son of Trimal Naick, Meenautchee Ammaul being regent during Vijaya Coomauran's minority. The adoption was generally acceded to by the ministers and men in authority; but it was disputed by the young man's own father, Bhangaur, who claimed the inheritance to the throne, and his claims were powerfully supported by the activity and influence of his years and rank. The parties are described in one account as having come to an indecisive engagement; but it is admitted that the matter was, with much less policy, referred to Dost Ally the Nawab of Arcot, who sent his son Sufder Ally, and Chunda Sahib his Diwaun and son-in-law, with an army to hear and decide the disputed question. (10) *Intervention of the Nawab of Arcot, and extinction of the Naick line.*—The cause was discussed at Trichinopoly, and the general bias leaning to Bhangaur Trimal Naick, he was placed on the throne, presenting three lakhs of rupees to his Mahomedan friends and acknowledging himself the tributary of the Nawab of Arcot. The same means that had secured a favorable award for the successful candidate were now employed to procure a reversal of the sentence; and a nuzzer of a crore of rupees, it is said, prevailed on Chunda Sahib to undertake the cause of the Ranee. These negotiations becoming known to Bhangaur Naick, he quitted Trichinopoly, and endeavoured to secure himself in Madura and Tinnevelly; but he was unequal to oppose the troops of the princess, aided by the Mahomedan arms, and, after a few unsuccessful skirmishes, he fled to Shivagunga, where Wodeya Tevan received him and assigned him some lands for his subsistence. The zeal which Chunda Sahib had displayed in behalf of Meenautchee Ammaul and the success with which it had been attended were calculated to inspire confidence as well as gratitude; and it was under these impressions that the princess granted free access to the citadel of Trichinopoly to her defenders. The further precaution however was taken of exacting an oath from Chunda Sahib, that he would not avail himself of this facility to the detriment of his ally. No obstacles however were likely to deter this ambitious prince from securing a post of such importance to his meditated schemes of aggrandizement; and, consequently in despite of oaths and protestations, he presently seized upon the citadel of Trichinopoly, and threw Meenautchee Ammaul into prison, where overcome by shame and despair she swallowed poison and died, thus terminating the series of the Hindoo sovereigns of the Pandya kingdom. Bhangaur, with his son the cause of these dissensions, continued some time under the protection of the Shivagunga Poligar. They and their descendants were from time to time encouraged by the Nawabs of the Carnatic to expect restoration to the possessions of their ancestors; but there is no reason to suppose such hopes were ever held out to them in the spirit of sincerity, and it is certain that they bore no fruit. Chunda Sahib, it is said, ordered the son of Bhangaur Naick to be brought from Vellaicoorchy in Shivagunga, and installed in Madura, but Chunda Sahib's generals soon convinced him that he was not master, and he returned

77. The original meaning of the Tamul name Chola, properly Shozham, is southern. Cholamundalam or the realm of the Cholas is held to be the origin of the term Coromandel applied by foreigners to the peninsular shore of the Bay of

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again into private life. As late as 1820 the great grandson of Bhangaur Naick was in Madras, endeavouring to obtain pecuniary assistance from Government. His family were then at Vellaicoorchy. Chunda Sahib in the same year that he possessed himself of Trichinopoly, made his brother Bada Sahib Governor of Madura, and Saudic Sahib, his other brother, Governor of Dindigul. (11) *Invasion by the Mahrattas.*—In 1741, the then Nawab of the Carnatic (Safdar Ally), jealous of the growing independence of his brother-in-law induced the Mahrattas to attack Trichinopoly. Chunda Sahib's two brothers both marched to his relief, but were defeated and slain, and after three months he yielded prisoner himself to the Mahrattas, who carried him off to Sattaura. They however left a garrison of their own under Moraury Row in Trichinopoly, and continued to hold it till 1744, when Nizam ool moolk, who the year before had advanced with a large army on the Carnatic to put it in order, drove the Mahrattas out of Trichinopoly, which then became a part of the territory of the Carnatic, under the new Nawab Anwar ood deen. (12) *Disputes regarding the Soobahdarry.*—In 1748, the French ransomed Chunda Sahib from the Mahrattas, and he soon found means to make his way again to the Carnatic, where he took part with Moozuffer Jung, grandson of Nizam ool moolk, who was then disputing the soobahdarship of the Deccan with his uncle Nausir Jung. In 1749, Anwar ood deen attacked their combined forces at Amboor, but was defeated after a severe action, in which he was killed. Moozuffer Jung considered this victory as at once securing his position as Soobadar of the Deccan, and formally installed his ally Chunda Sahib, Nawab of the Carnatic. Meanwhile Mahomed Ally, the son of Anwar ood deen, had fled to Trichinopoly and before Chunda Sahib could invest it, the rival of Moozuffer Jung had entered the Carnatic at the head of a powerful force. Mahomed Ally joined his standard, but they were defeated by the French (who had entered vigorously into the contest) at Jinjee in 1750, at which battle Nausir Jung was killed. The French proclaimed Moozuffer Jung Soobadar of the Deccan (though he was killed before he joined his sovereignty, and was succeeded by Salaubut Jung, a brother of Nausir Jung), and Chunda Sahib, Nawab of the Carnatic. Mahomed Ally again threw himself into Trichinopoly, and the districts of Tinnevelly and Madura adhered to him, though Alum Khan, a partisan of Chunda Sahib, succeeded in corrupting the garrison of Madura, and held the town against Mahomed Ally. In the early part of 1751, Captain Cope from Fort St. David was repulsed in an attempt to storm Madura. The following year (1752), Alum Khan was killed before Trichinopoly, having joined Chunda Sahib's besieging force. In the same year Chunda Sahib was delivered by his French allies into the hands of the Tanjoreans, who put him to death. (13) *Independence set up by Maufooz Khan.*—Mahomed Ally was now better able to look to his interests in the south, and deputed his brother Maufooz Khan, in 1755, to settle the disturbances in the Tinnevelly and Madura districts, in which duty he was assisted by Colonel Heron and a small British force, and by Mahomed Yoosuf, a promising soldier who had attracted the notice of Lord Clive. Considerable difficulty was experienced by Maufooz Khan with the rude Kulla tribes, who under a race of wild poligar chiefs acknowledged no authority; but within the year they were subdued, at least nominally; Madura surrendered, and Nellicottah, the stronghold of Cataboma Naick, 40 miles south of Tinnevelly, was stormed. At the end of the year, Colonel Heron and his force were recalled to Madras, but before he got out of the country received a severe discomfiture from the Kullar in the Nuttam Pass. Maufooz Khan was left in charge of Madura and Tinnevelly, which he had on rent for a lakh and a half of rupees, a sum supposed to be far below what it was worth. The poligars of the south quite prevented Maufooz Khan from establishing any government, and the adherents of Alum Khan succeeded in raising a confederacy against him, in which however Cataboma Naick would not join. In 1756 Maufooz Khan defeated their forces near Tinnevelly, and with the assistance of Mahomed Yoosuf in some measure secured his authority. During this period the Tondiman poligar when obliged to act at all made cause with Maufooz Khan, or rather with his British supporters. At this time the Madras Government had made arrangements with the Nawab for relieving Maufooz Khan of his charge, and transferring the rent of Tinnevelly and Madura to a wealthy native of the Moodelly caste, who was invested with civil and criminal jurisdiction; Mahomed Yoosuf having military charge. Maufooz Khan indignant at this arrangement, leagued with the discontented poligars; and taking possession of Madura, proclaimed himself governor of the district. He also sought an alliance with Hyder Ally, then rising into notice as a Mysorean general, who had a force at Dindigul. (14) *Occupation of Madura by the British.*—Captain Calliaud was deputed by the Madras Government to treat with Maufooz Khan, but failed. He was then sent with a military force against Madura, and on two occasions, May and July 1757, was beaten back in an attempt to storm; but in September he concluded a negotiation with Maufooz Khan's Jemadars who were left in charge of Madura. They accepted 1,70,000 rupees which they demanded as arrears of pay due by Maufooz Khan, and Calliaud took possession of Madura the very day the Marquis de Soupires landed with his armament as Governor of Pondicherry. In October Calliaud was recalled to Trichinopoly, and Mahomed Yoosuf left to protect Madura. It was at this time that Hyder Ally made a dash into the Madura district from Dindigul and plundered the country; he was however gallantly driven out by Mahomed Yoosuf. It was now evident that the Moodelly could not manage his districts, for Maufooz Khan had his adherents in all quarters. The Nawab again endeavoured to negotiate with him but failed. Mahomed Yoosuf thereupon attacked him and his poligar allies, and would soon have brought the country under, but he was recalled (April 1758) to Trichinopoly where his aid was much needed to assist Calliaud against the French. With the exception of the forts of Madura and Tinnevelly, which were gallantly held by the sepoys, the whole country was now in a state of anarchy, and many of the chief poligars set up for themselves. (15) *Mahomed Yoosuf made renter.*—In 1759 the Government determined to rent the two districts to Mahomed Yoosuf, who proceeded with a strong force to establish authority. For several months Maufooz Khan and the poligars, in whose hands he was a tool, succeeded in harassing the new governor; but in 1760 Maufooz Khan came over to Mahomed Yoosuf at Tinnevelly, and was forwarded on to his brother the Nawab with whom he was soon reconciled. Throughout the year the poligars, especially of Tinnevelly, continued their depredations, in spite of Mahomed Yoosuf's vigilance and determination; but he eventually restored order, and introduced a system of equitable government almost without a parallel among native rulers. He was not however able to pay the rent for which he had engaged. Of this failure, the Nawab and the Company considered it necessary to take notice, and in the month of August 1763 a combined army of Native and English marched to Madura. Mahomed Yoosuf endeavoured by negotiation and the influence of those among the English whom he had rendered his friends, to ward off the blow. But when he found these efforts unavailing, he resolved to give himself the chance of a struggle in his own defence. He was not a man whose subjugation was to be expected at an easy price. He baffled all the efforts of the Nawab and the Company till the month of October 1764, when he had already forced them to expend a million sterling, and no ordinary quantity of English blood; and except for a deed of treachery which placed his person in their hands, it is uncertain how far he might have prolonged his resistance. Among a body of French troops whom he had received from the Rajah of Tanjore was a person of the name of Marchand, by whom he was seized and delivered to his enemies. (16) *Appointment of collectors in the south.*—The treaty of Paris in 1763 having put an end to French interference with the Nawab's affairs, his Carnatic districts were left in the hands of renters; the poligars of the south still continuing to yield but a very imperfect allegiance. In 1781, soon after the second war with Hyder had commenced, it was arranged with the Nawab, who was quite unable to perform his engagements, to assign his revenues to the Company for a period of five years, one-sixth of the proceeds being reserved for his own expenses. The Government accordingly appointed their own collectors.

[6] NATIVE AUTHORITIES ON THE TOPOGRAPHICAL HISTORY OF MADURA.—*Introduction.*—As qualifying the statement that there is no Hindoo history, mention has been made more than once in these pages of the very numerous topographical notices of the Brahminical priesthood. The three following prose extracts relating to Madura are ordinary specimens. The characteristics of such notices are that they are written in the interests of religion, that they

Bengal. The word Chola appears in numerous names of places, a familiar example of which is Shoranore. As above mentioned the Asoca inscriptions speak of the Cholas under the name of Chodas. Ptolemy and the Periplus speak of σῶραι νομάδες,

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contain lists of rulers without particulars, and that those which have most historical matter have been written since the Mahomedan invasion. The texts here given are such as they appear in Tamul books, and the translation is approximate. (2) *The flood which occurred at Madura during the time of the ancient dynasty.*—அப்பால்மனுப்பிறளயம் வந்துபூமியெலலாமசெலஙகொறதபபொசசுதஅபபொதுசுவாமியினுடையஆககினையினலெமதுரையிலஇநதிரவிமானமஅமமனவிமானமபொறறாமரைசுவாமியினுடதிருவிளையாடலிலெவநதஎழுகடலநாகமலைபசுமலைரிஷபமலைஆனைமலைஇதுகளதவிரமறறதெல்லாமஅழிநதுபோசசுதுமனுடாமிருகஙகளபடசியளவிருடசஙகளஇதுகளெலலாமஒனறுமிலலாதெபொசசுதுபினபுபழயபடிககிசமுததிரமநிலையிலநினறுதபூமியெலலாமகாடுகொணடுபிளையபடிககிகதமபவனமாசசுதஇதுவரையிலபிறமதெவருடையபகலிலஆறுமனுபபடடமாசசுதசுவாமிஞறபததெட்டுதிருவிளையாடலவிளையாடினார்பினபுபிறமதெவரிடததிலெயழாமனுவாகியவைவசுதமனுஉணடாயஅவர்பூமியாளுகிறநாளையிலஇவடமதெவவருஷததிலலெடசமவருசமகாடாகயிருநதது. "Afterwards, the Menoo's flood having come, the earth was covered everywhere with water. Then the following alone continued by divine providence; that is to say, the shrine of Indra, the shrine of Ammen, the golden-lotus tank, the seven seas that were assembled in the sacred amusement of the god, the Snake mountain, the Cow mountain, the Bullock mountain, the Elephant mountain. These being excepted, all things else, men, beasts, birds, trees, and shrubs, were destroyed. Afterwards, as before of old time, the sea retired within its boundary. All the ground, as of old, became a wilderness, and was covered with cathambum trees. The rule of six Menoos out of Brahma's day was now completed. During this period the god performed forty-eight sacred amusements. Afterwards, during the rule of the seventh Menoo, Veivaswata Menoo, appointed by the god Brahma, this place continued like a forest during a lakh, or 100,000, of years of the gods." This extract is from the Pandya Chronicle by a Sheiva Brahmin. The flood in which the vessel bearing Menoo and the seven saints rested on the Himalayas, is an old Aryan tradition; and an incursion of the sea over the peninsula may have been confounded with it. The hills mentioned are hills near Madura. The sacred amusements or Tiroovilaiyaudals of Shiva are the religious episodes, or in other words the miraculous events, of Madura history. They were in all sixty-four, and are peculiar to Madura. (3) *Account of the interregnum at the close of the ancient dynasty.*—அதினபிறகுபாணடியாளவமுசததிலபிளளையிலலாததிைலெவையபபாடடியளபிளளையளுமதாயாதிககாறாபிளளையளுமஒனறுககொணடுஅடிசசுககொணடுசீமையளைவெவவெறெபிறிததுககொணடுபாணடியாளுடையசீமையிலெஅவாவருககுததொணினயிடத்திலஅவாவர்களபடடணமகடடிககொணடுஅநதபபடடணததைசசுழநதசீமையளைஆணடுகொணடிருநதார்களமதுரையிலெஒருபாணடியனெயுமஇருககவொடடாமலவொனறுககொனறுசணடைபணணிககொணடுஅவனவனவெவவெறெபிளளைபிளளைதலைமுறையாயஅநதநதபபடடணஙகளிலெஇருநதராசசியமஆணடார்களஅபபடியிருநததினலபாமபரையாயபெர்களதெரியவிலலைஅபபடியிருககுமளவிலமதுரையிலபாணடியாளஇலலாததினலெகீறதிபூஷணபாணடியனுமறறபெர்களுமஉணடுபணணினதிருபபணிகளெலலாமசீறணமாயபபொயிவிடடதுஅவாநதிரகாலமாயபபடடணஙகளிலெஇருககிறகுடியளுமசிலலரையாயபபொயிவிடடதுஇபபடிநானாவிதமாகமதுரைசுநதரெசாரிடததிலபாணடியாககளபததியிலலாததினலெசுநதரெசாருககுமபாணடியாளிடததிலகிறுபையிலலைஆனதாலஅவர்களுமசீறணமாயபபொனார்கள. "After that, the Pandyan race becoming extinct, the children of concubines, and of younger brothers in former ages, or collateral heirs, fought one against another; and dividing the country into factions, they caused themselves to be crowned in various places of the Pandyan kingdom, and ruled each over his own town and the surrounding neighbourhood. No one being permitted to rule in Madura, from various opposing claims, each party strove in battle against the other; and their several children continued for some generations to rule in those various places. In consequence of this confusion, their names in order are not known. While matters were thus, in consequence of there being no Pandyans in Madura, the works and ornaments of the temples, made by Keertibhooshana Pandyan, and by others, went to decay. In these evil times the inhabitants of the place became poor, and few in number. Thus, in various ways the Pandyans becoming destitute of piety towards Soondareshwara, the god Soondareshwara exhibited no regard towards the Pandyans. Therefore they also went to decay." This extract is from the same work. Keertivibhooshana was the ruler at the time that the invasion of the sea occurred. Soondareshwara, or the beautiful Eeshwara, is a common title of Shiva. (4) *Account of the Mahomedan invasion, a list of Native Kings, and the establishment of the Naick rule from Vijianugger.*—பின்புபறுககிறமபாணடியருகிறவர்ஆணடுகொணடிருககையிலசாலிவாகனசகாறதம-௵௲உ௱ச௰சு-ககுமேலகொலலமழிநதுஆணடு-உ௱உ௰எ ககுமேலருதிரொதகாரி-௵ஆனிமீ-வடககேடிலலியிலிருநதுஆதிசுலுததான்மலுககுநெமியென்பானும்வநதுபறுககிறமபாணடியதேவரைப்பிடிததடிலலிககுஅனுப்பிவிச்சிப்போடடுறுச்சியததைககடடிககொணடார்களஅதுமுதலநாற்பததெடடுவருசம்துலுககாணமானதாலநாயனார்மதுரைககிவாயததபெருமாளும்நாஞசனாட்டில்ப்போயிருநதார்அப்போதுபஞசாடசாத்திருமதிளும்திருப்பணியளும்இடிபபடடுததாயனார்கெறபககிறகம்அறதமணடபம்மகாமணடபமமேலககோபுரம்சின்னதிககோபுரம்இவளவும்தப்பியிருநதுதுஅப்போதுசகாறதம்-௲உ௱௯௰௫-ககுமேலசெலலாநின்றவிகுருதி-௵-வைகாசிரூர்ராசாவாசலதளகறதம்கம்பணஉடையவர்கன்னடியர்வநதுதுலுககனைவெட்டிததுறததிப்போடடுசிவஷதலம்விஷ்ணுஷதலம்மெலலாம்திருககாப்புநீககிசுவாமியையுஙகோவிலிலெழுநதருளப்பணணிவிச்சுபாணடியாளுடையவமுசததிலிருககிறசோவிசாரிததுசோமசேகாபாணடியனுககுபடடஙகடடிவிச்சார்அவர்ஆணடவருசம்-௰எ-அவன்குமாரன்சோமசுநதரபாணடியன்-௵-௯௰௫-அவன்குமாரன்ராசராசபாண்டியன்-௵உ௰உ-அவன்குமாரன்ராசகுஞசரபாணடியன்-௵௰சு-அவன்குமாரன்ராசசெகரபாணடியன்-௵௰அ-அவன்குமாரனராமவறமன்-௵௯௰சு-அவன்குமாரன்வாதருசபாணடியன்-௵௰௯-அவன்குமாரன்குமாரசிஙகு-௵௰சு-அவன்குமாரன்பீமசெனபாணடியன்-௵ச௰-அவன்குமாரன்பிரதாபராசன்-௵௰௫-அவன்குமாரன்வாகுணபாணடியன-௵உஎ-அவனகுமாரனகுமாரசநதிரன-௵உ௰உ-அவனகுமாரனவரதுஙகன-௵அ-அவனகுமாரனகுலோததுஙகன-௵௰௯-அவனகுமாரனசநதிரசெகரன-௵௯௰௫-ஆகபபடடம-௰௫-ககு-௵௯௱ச௫-இபபடியிருககுமவரையிலகலியுகம்பிறநது-ச௲௬௱௯௰௯-சாலீவாகனசகாறதம்-௲௯௱௫௰ச-ககுமேலசசெலலாநினறபரிதாபி-௵-ராயரவர்களஉததாரபபடிககிகொடடியமஞகமஞயககர்வநதுபாணடியாளசீமையைககடடிககொணடு௲சுர-௵-வரைககும்-௵உ௰சு-ககுவிசுவஞதஞயககர்அயயாவர்களருச்சியம்ஆணடார்கள. "Afterwards, in the year of Shalivahana Sagauttam one thousand two hundred and forty-six, corresponding with the year of the éra reckoned from the destruction of Collam (Quilon), two hundred and twenty-seven, agreeing with the Auny month of Roodrotcaury year, when one named Paracrama Pandyan was reigning, Audy sultan moolk, and one called Nemy, came from Delhi in the north, and taking Paraucramatevar captive, they sent him to Delhi, and conquered the country. From that time forwards, as affairs were conducted in the Mahomedan manner, the Mathooray Nayanaur Vayatta Permaul (Shiva's image) went and remained in the Naunjy country. Then the five letter-sacred wall (of the temple), and the various things connected with it, were thrown down. The shrine of the god, and the porch at its entrance, the great choultry, the higher tower, and the entrance tower, alone escaped destruction. Subsequently, in the Shalivahana Sagauttam year

the wandering Cholas; ἀρκάτου βασίλειον σῶρα, Chola the capital of Arcatus; ὀρθοῦρα βασίλειον σώρναγος, Orthoura the capital of Sornax; παραλία σωρητῶν, the coast of the Soretes. The word appears here in different forms. The wandering

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one thousand two hundred and ninety-three, corresponding with Virothicrit year of the Indian cycle, Cumpana Wodeyaûr, a Carnauta man, general of the Mysore rajah's forces, came and cut off and drove away the Mahomedan. He removed the sandal-paste over the images of the Sheiva and Vishnoo temples; and making the god condescend to arise and dwell in the temple, he instituted researches concerning persons of the Pandyan race, as the result of which he caused Somashekhara Pandyan to be crowned. He reigned seventeen years. His son, Somasoondra Pandyan, ruled thirty-five years. The reign of his son, Rajaraja Pandyan, was twenty-two years. His son, Rajacoonjara Pandyan, reigned sixteen years. His son was Rajashekhara Pandyan, whose rule was eighteen years. His son was Ramavurman, who reigned thirty-six years. His son was Varadaraja Pandyan, whose reign lasted nineteen years. His son was Coomaurasingh, who reigned sixteen years. His son was Bheemasena Pandyan, the period of whose reign was forty years. His son was Prataupararaja, who ruled fifteen years. His son, Varagoona Pandyan, reigned twenty-seven years. His son was Coommara Chandra, and his reign continued during twenty-two years. Varatoongan, his son, reigned eight years. His son was Coolotoonga, who reigned nineteen years. Chundrasekharan, his son, ruled thirty-five years. Thus fifteen reigns occupied three hundred and forty-five years. During this state of things, in the year of the Kali-yoog four thousand five hundred and thirty-three, corresponding with the year of the era of Shalivahana Sagauttam one thousand three hundred and fifty-four, and Paritaupy year of the Indian cycle, by command of the Royer of Vijianugger, Cottiyam Nagama Naickar came and conquered the Pandyan country. Afterwards, down to Eeshwara year, being twenty-six years, Vishwanautha Naickar ruled the country." This extract is from a work similar to the last, without title or author's name. The greater number of such compositions are anonymous. This is not of ancient date. Paracrama began to reign in 1365, but the Mysore Ballaulas really held the country. Audy Sultan Moolk is a title, and means either Malik Caufoor or Moojauhid Shah. Nemy is not known. The Naunjy country is Nunjenaud on the west coast. The mantram of the Sheivas contains five sacred letters ந, ம, சி, வ, ய; which means "salutation to Shiva." When a temple is closed, sandal-paste is put over the images. The usurpation of Nagama and his son Vishwanautha is described in the text.

[7] SKETCH OF THE SEQUEL TO THE HISTORY OF THE MARAVA TRIBE—*Introduction.*—As to the antiquity of these people there is no doubt, but nothing has as yet been discovered regarding their early history; and notes on that subject belong to a much later period. (2) *Origin of the Shetoopaties.*—A few years after the irruption of Moojauhid Shah mentioned in a later note, or about 1380 A.D., the Marava chief of Ramnaud to some extent threw off his dependence on Madura; and his successors extended their authority to the neighbouring provinces. In the reign of Moottookrishnappanaick of Madura, the Marava chief Wodeya Sadeiyakka Tevar having conveyed in safety the king's gooroo or priest to Rameswaram, received from that ruler the title of Shetoopaty or Lord of the Causeway. This was about 1590 A.D. The power of the Marava chiefs first assumed a consistent form at this period. They were not however by any means entirely independent; as, although authorized to extend their authority over their refractory and predatory neighbours, they were required to pay tribute to the Madura government. They were especially enjoined to give protection to the pilgrims to Rameswaram against the Kullar, who had been accustomed to plunder and harass these devotees on their passage, so as almost to have deterred the people of other parts of India from undertaking so perilous a journey. Wodeya Tevar died about 1623 A.D. (3) *Relations with Trimal Naick.*—The affairs of Ramnaud assumed a prominent character in the reign of Trimal Naick, who began to rule about 1623 A.D. Cootan Shetoopaty, the son of Wodeya Tevar, who had succeeded his father, died in 1637 A.D. childless, and was succeeded by his brother Dalavoy Shetoopaty. The latter was opposed by Bettana Naickar, generally called Tumby, a younger brother who succeeded in obtaining the countenance of the king of Madura. The king indeed sent an army under Ramappayya to his assistance. After an active warfare the rightful claimant was taken prisoner and carried off to Ramnaud where he was kept in close confinement. Tumby Shetoopaty was now sole master of Ramnaud; but the people who believed him to be illegitimate and whose sympathies were with the imprisoned chief broke out into open rebellion, and Tumby was glad to seek safety again in the court of his patron. Ramnaud was thus without a ruler; and the same dangers that formerly prevailed once more obstructing the pilgrimage to Rameswaram, the Brahmins and religious mendicants solicited the restoration of Dalavoy Shetoopaty to the government, as calculated to re-establish order and security in the country. Trimal complied in some degree with their request; that is to say he gave to Dalavoy, with his liberty, a third part of his patrimony, leaving another third in the hands of Tumby, and conferring the rest on Tanakkan, the son-in-law of Dalavoy. This was in 1640. This division of the Marava state did not long continue. Tumby contrived to put his brother to death in 1649, but soon after dying himself, his portion was seized by Vijaya Ragoonath Tevar, the adopted son of Dalavoy; who likewise gained possession of the share of Tanakkan upon his death, and thus in A.D. 1659 re-united the three governments under one head. This chief although he extended his authority over the adjoining districts continued obedient to the authority of Trimal Naick, and upon the invasion of Madura by a formidable army from Mysore, was highly instrumental in their repulse. With an activity which received the acknowledgment of the Naick, he led a considerable force to the assistance of Madura, and mainly enabled that ruler to defeat and expel the invaders. (4) *Events from end of Seventeenth Century.*—Ragoonath Tevar reigned 26 years and was succeeded A.D. 1685 by a son who reigned only a few months and then by another who also died in three months. None of these had children or nephews. The chief people of the Marava then assembled, and after due deliberation, nominated Ragoonath Tevar generally called Kizhava Shetoopaty, uncle's grandson to the last prince. This was in A.D. 1686. He governed the country 37 years till 1723. It was during his reign in February 1693 that the Jesuit missionary Jean de Brito was put to death as related in the "Lettres Edifiantes." In his reign the king of Tanjore dispossessed Ramnaud of Devicottah, Munnaurcoil and Trivalore. The succession had been arranged for Vijaya Ragoonath, sister's son to the last prince, for the only other person who could have claimed the puttam was Bhawany Shuncara, who was a son by a woman not of the Marava caste. The latter was therefore considered incapacitated. It was in Vijaya Ragoonath's short reign that the Naulcottah family, (afterwards of Shivagunga), rose into notice, the Naulcottah chief having married a daughter of the Ramnaud ruler. On the death of the latter, the puttam or crown was contested by Bhawany Shuncara above mentioned and Coota Tevar, who had married one of the daughters of the last prince. The king of Tanjore first took side with Bhawany and established him in Ramnaud, but afterwards he yielded to the solicitation of Coota Tevar, and his friend the Naulcottah chief, and in 1729 Coota Tevar was finally installed as the Shetoopaty. He was also called Moottoo Ragoonath. His first act was to give two-fifths of his country to his ally Sheshavarna Tevan, who then became chief of Shivagunga. Cotta Tevar died in A.D. 1735. He was succeeded by Moottoo Coomaura Vijaya Ragoonath. He governed for thirteen years, and died A.D. 1762, being succeeded by his sister's son Moottoo Ramalingam Vijaya Ragoonath, an infant, the regent being the widow Moottoo Tiroovye Nauchiyaur. (5) *Affairs with Tanjore.*—In 1770, the Rajah of Tanjore invaded the country, on the plea of getting back the district of Hanoomantagoody, which he asserted had been seized upon by the Ramnaud chiefs many years before. He was however obliged to return before he had effected his object. The Nawab of the Carnatic, Mahomed Ally, was jealous of Tanjore, and persuaded the Madras Government that he was a mere tributary, who had no right to attack the Nawab's feudatory of Ramnaud. The Rajah's explanations and intentions not being satisfactory, the Nawab assisted by the English attacked Tanjore and made their own terms; but the very next year or in 1772, the Nawab urged the English to attack Ramnaud and Shivagunga, because they had not sent their troops to aid in taking Tanjore. A force was in fact sent under General Joseph Smith from Trichinopoly, accompanied by the Nawab's son. On the 25th June 1772, Ramnaud was taken by assault, and the widow regent

Cholas were the Coorumba shepherds. The name of a ruler Arcatus may be erroneous, having however some connection with the town Arcot or other place similarly designated. Arcot means "banyan-tree forest." Sornax is "Chola Naick" or Chola ruler. Orthoura is Warriore, literally "the town of habitation," otherwise called Kozhy; a suburb of Trichinopoly. The portions of the coast are named in the Greek writers after the tribes in the neighbourhood. According to the stanzas of Auveiyaur the ordinary boundaries of the Chola kingdom were on the north the Ponniaur river falling into the sea near Cuddalore, on the south the Poodoocottah Vellaur, on the east the sea or Bay of Bengal, and on the west the Eastern Ghauts. Poogazhendy and Cumban give Eezham as the northern boundary, which has yet to be identified[8]. This excludes the subsequent acquisitions; namely the subordinate kingdom of Tondeinaud or Tondeimandalam, and distant and temporary conquests. With Tondeimandalam the kingdom extended north beyond Tripatty and in still more recent times it was pushed far into the Teloogoo countries. The Chola kingdom thus lay to the north-east of the Pandyan kingdom. The capital was first Warriore above mentioned, secondly Combaconam, thirdly a place called Gungaycundapooram near the present Trichinopoly, and finally Tanjore. The Chola banner had a tiger on it. The Brahmin legend is that an Aryan settler from Oudh founded the kingdom. The story is however unreasonable on the theory here taken of the Dravidian kingdoms. All tradition points to the Chola kingdom as being of the same age as the Pandyan. The Cholas were constantly at war with the Pandyans and also with Ceylon. Their early history however is almost a complete blank; and there is not even a list of kings, real or imaginary, as there is in the case of the Pandyans. The Cholas first came into prominent historic notice at a much later period, or about the 11th century of the Christian era. The evidence derivable from the written characters in inscriptions is that the Cholas were among the first of the Dravidian nations to adopt a northern alphabet in supersession of the native Vattezhoot. Their later alphabet was a form of Granta, which came through the Chera alphabet from the alphabet known as the Cave form of Southern Asoca[9].

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and Moottooramalingam were carried off prisoners by the Nawab to Trichinopoly. Here they were imprisoned for eight years, during which time the widow died. At the requirement of the Madras Government when Hyder's war broke out, Moottooramalingam was in 1780 re-installed as a dependent of the Nawab in Ramnaud, on payment of an annual peshcush of 1,75,000 rupees. (6) *Management by the Company.*—It was at this time that the Nawab's revenues were assigned to the Company as security for the expenses of the war, and Mr. Sullivan was sent to Ramnaud as Collector of Poligar peshcush. After fifteen years of great misrule, the Government were obliged to send a military force into the province, as the chief would not make any arrangement for paying his peshcush, and eventually in 1795 he was deposed and carried as a State prisoner to Madras, where he died in 1802. A more particular account of the present Ramnaud Zemindarry will be found in a note to the article on Zemindarries.

[8] NATIVE AUTHORITIES REGARDING THE CHOLA KINGDOM—*Introduction.*—The following are maxims from Tamul poetry. The metropolis of the Chola country is Warriore. Its principal mountains are Colly and Nery. Its chief river is the Cauvery. The name of the king's horse is Coram (the original of the Teloogoo [illegible]). His distinctive garland is the flower of the autty tree. The device on his banner is a tiger. He is of the solar pedigree. (2) *Boundary stanza by Auveiyaur.*—கடல்கிழக்குதெற்குகரைபொருவெள்ளாறுகுடதிசைக்குக்கோட்டைக்கரையாம் வடதிசைக்குயெனாட்டுப்பெண்ணையிருபத்துநாற்காதம்சோணாட்டெல்லையெனச்சொல். "The sea is east. On the south is the bank assailing Vellaur. On the west is Cottaicaray. On the north is the Pennay of Yenaud. The extent of the Chola country is twenty-four cautham. So say." The Cottaicaray appears to be the boundary of fortified territory. The Pennay is the modern Ponniaur or Southern Pinaukiny of Salem and South Arcot. For Yenaud see the later note on Tondeimandalam. (3) *Boundary stanza by Poogazhendy.*—கடல்கிழக்கு தெற்குகரைபுரளும்வெள்ளாறுகுடதிசைக்குக்கோட்டைக்கரையாம்வடதிசைக்குஈழமுதலாயிருபத்துநாற்காதம்சோழநாட்டெல்லையெனச்சொல். "The sea to the east. To the south the bank-flooding Vellaur. To the west Cottaicaray. To the north Eelam, etcetera. Twenty-four cauthams form the extent of the Chola country. So say." Eelam is not identified. It is also written Eezham. (4) *Eulogistic stanza by a Chola poet.*—கோரத்துக் கொப்போகனவட்டமம்மானேகூறுவதுங்காவிரிக்குவைகையோவம்மானேஆருக்குவேம்புநிகராகுமோவம்மானேஆதித்தனுக்குநிகரம்புலியோவம்மானேவீரர்க்குநிகராகமீனவனோவம்மானேவெற்றிப்புலிக்கொடிக்குமீனமோவம்மானேஊரிற்புகார்தனக்குக்கொறகையோவம்மானேஒக்குமோசோழனுக்குப்பாண்டியன்காணம்மானே. "Can the Canavattam match the Coram, O lady? Is the Cauvery to be spoken of with the Veigay, O lady? To the cassia is the margosa equal, O lady? To the sun is the moon equal, O lady? To the warrior is the fish-king equal, O lady? To the victorious tiger-banner what is the fish, O lady? Among towns to Poogar is Korkay comparable, O lady? Can there be compared to the Cholan the Pandyan, O lady?" Poogar, or the town of praise, is Warriore. For the other references, see the stanzas relating to Pandya.

[9] SKETCH OF THE SEQUEL TO THE HISTORY OF THE CHOLA DYNASTY—(1) *Invasions of Ceylon.*—The earliest notices of the Chola kingdom are found in the annals of Ceylon, and apparently there was constant communication between the two kingdoms from an early date. Thus in B.C. 205 Elaula, a native of Malabar, invaded Ceylon from the Chola country, and conquered the island which he ruled for forty years. In B.C. 103 the king of Ceylon was expelled from his throne by a Tamul usurpation, but was restored in 89. In A.D. 110 the Cholas again invaded Ceylon and carried away a number of prisoners, but in 113 the Ceylon king retaliated by invading and ravaging the Chola kingdom. About 433 A.D. the Tamuls again usurped the government of Ceylon, and great numbers of them emigrated to that island, where they obtained much influence. Other early notices of the Chola kingdom are not numerous. An inscription

78. The name Chera like Pandya means, in ancient Tamul, toddy or palm juice. It is the oldest known name for Travancore. This kingdom was before historic times eclipsed to a great extent by others, and as little as possible has been ascertained regarding it. As above mentioned the Asoca inscriptions speak of the Chera ruler under the name of Keralapootra. Ptolemy speaks of καρεοὶ and κάρουρα βασίλειον κηροβόθρου ; which may be taken to be Cheras, and Caroor the capital of Cherapaty or the Chera ruler. Caroor, Cauzhagam, or Cadauram, the two latter being the forms in the high Tamul dialect, mean the black town. Chera is always spoken of in tradition as well as in the written authorities as contemporary with Pandya and Chola. A stanza by Auveiyaur[10] gives as the northern boundary Pulney, as the eastern Shencottah on the frontier between Travancore and Tinnevelly, as the western Calicut, and as the southern the sea. As is usual in boundary stanzas, three of these are points only. The boundary to the north will proceed naturally along the barrier of the Pulney and Anamullay hills to the west coast. However these are the limits of a later period, and cannot define the old Cheramandalam. Caroor is much to the north of Pulney. Another stanza makes the Tinnevelly Tencausy as the eastern boundary. There are grounds for supposing that the Cheramandalam included once the present Mysore, Coimbatore, and Salem, the old Tondeinaud, and the present South Malabar and Cochin. To the south-east at any rate it was always confined by Pandya and Chola. A tradition places the tri-junctional point of the Pandya, Chola, and Chera kingdoms on the banks of the Caraypottanaur, a small river entering the Cauvery eleven miles east of Caroor.

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dating from the beginning of the seventh century A.D., states that Satyaushraya or Poolikeshy II, the Chalookya king, proposed to annihilate the Cholas, but nothing came of the expedition. Vicramaditya I of the Western Chalookyas, who reigned about A.D. 670-680, and his successor Vinayaditya, both claim to have conquered the Cholas, but this is doubtful. From about 850 to 1023 A.D. the Cholas extended their power northwards by warfare and inroads. About 894 the Cholas under Aditya Vurmah reconquered the Chera country, which they held till the rise of the Hoysala Ballaulas in the tenth century. In 951 the Ceylon king assisted the Pandyas against the Cholas, but the latter were successful. (2) *Caricaula and Rajaraja.*—About this time Caricaula became king of Chola. In 990 he invaded Ceylon but was repulsed. The Cholas were conquered and Tanjore captured by the Chalookyas, about the end of the tenth century. Caricaula was succeeded in 1023 by Rajaraja, one of the most powerful rulers of his time. This king by intermarriage with the Eastern Chalookyas united Vengy and Calinga to the Chola territories. Jayasimha III of the Western Chalookyas, a contemporary of Rajaraja's claims to have conquered the Cholas. In 1059 Rajaraja successfully invaded Ceylon, sent the King Mahindo a prisoner to India, and appointed a Chola viceroy to govern the island. (3) *Coolotoonga.*—In 1064 Rajaraja was succeeded by Coolotoonga I, also known by the names Veera, Rajendra, Coppakesharivurmah, Covirajakeshary, and others. The kingdom now extended up to the borders of Orissa. The Pandyan kingdom was annexed for a time, Coolotoonga's younger brother Gungaycondaun Chola being placed on the throne. In 1064 Coolotoonga's illegitimate son Athonday crushed the Pallavas, and their kingdom became a Chola province under the name of Tondeimandalam. About this time also the Cholas defeated the king Ahavamalla or Someshwaradeva I in a battle near the Toongabudra and overran the Western Chalookya territories, but were soon driven back. Causyapa, son of Mahindo, king of Ceylon, succeeded in defeating the Chola viceroy's army, and on Mahindo's death in 1071 proclaimed himself king, but soon afterwards died. The throne was then seized by the son of the minister Lokeshwara, who took the title of Vijayabauhoo, and proclaimed war against the Cholas. The latter were finally defeated, and Vijayabauhoo ascended the throne. Subsequently having insulted the Chola ambassador, he was attacked and defeated by the Cholas, but afterwards recovered the throne. The greater part of the endowments of the great temple at Tanjore were according to an inscription on it, made by Coolotoonga in 1080, and the temple was probably built by that king. (4) *Coolotoonga's successors.*—Coolotoonga died in 1113 and was succeeded by his son Vicrama. In 1116 the Singhalese invaded the Chola kingdom, but were repulsed. Vicrama was succeeded in 1128 by Coolotoonga II, who reigned till some period subsequent to 1158. He had a son named Rajendra whose inscriptions between the dates 1165 and 1194 have been found in the country about the Godavery and Kistna rivers. After his death this part of the Chola kingdom fell into a state of anarchy, and finally came into the possession of the Ganapaties of Warangal. About this time the Cholas assisted Coolashekhara king of Pandya against the Singhalese, who had driven him from his kingdom ; the latter however were successful, and obtained possession of a considerable portion of the Chola territories, which was finally handed over to Veera Pandyan, son of Coolashekhara. In 1216 Rajaraja was reigning in Chola ; he was succeeded in 1232 by Vicramadeva. About this time the Cholas lost Calinga. In 1242 Peroonjinga or Copperoonjinga came to the throne, and reigned for about twenty years. Madrantacam Pottapy Chola came to the throne in 1286 and reigned till 1310. Marco Polo who visited the south of India in 1292 mentions the kingdom of Soli, which seems to be intended for Chola. He calls it "the best and noblest province of India." (5) *End of the Chola dynasty.*—In 1310 the power of the Cholas was more or less crippled by the Mahomedan invasion of the south of India under Malik Caufoor. The Mahomedans held the country till A.D. 1347, when they were driven across the Kistna by a powerful Hindoo confederation. The power of the Cholas for the last time asserted itself in the person of Vijayacandagopauladeva, after which the name disappears from history. An inscription mentioning this ruler has been found at Conjeeveram, but nothing certain is known about him.

[10] NATIVE AUTHORITIES REGARDING THE CHERA KINGDOM—*Introduction.*—The following are maxims from Tamul poetry. The metropolis of the Chera country is Tiroovaunausicalam ; the name of the king's horse is Paudalam. The king's distinctive garland is the flower of the pinnay tree. The chief rivers are the Tambravanny and the Porny. The device on the king's banner is a bow. He is of the agnicoolam or fire-race. (2) *Boundary stanza by Auveiyaur.*—வடக்குத்தலம்பழனிவாழ்கிழக்குச்செங்கோடுகுடதிசைக்குக்கோழிக்கூடாகும்கடற்கரையினோரமதுதெற்காகுமோரெண்பதிங்காதஞ்சேரநாட்டெல்லையெனச்செப்பு. "The northernmost place is Pulney. The most east is Shengode. On the west is Cozhicood. The shore of the sea is on the south. Say that some eighty cauthams make the boundary of the Chera country." Shengode is the modern Shencottah in Tinnevelly. Cozhicood is the modern Calicut. (3) *Boundary stanza by Auveiyaur.*—வடக்குத்தலம்பழனிவானகிளக்குத்தென்காசிகுடதிசைகொளிக்கூடாகும்கடற்கரையினோரமதுதெற்காகுமோரெண்பதிங்காதஞ்சேரநாட்டெல்லையெனச்செப்பு. "The northernmost place is Pulney. Right to the east is Tencausy. To the west is Colicood. The shore of the sea is on the south. Say that eighty cauthams make the boundary of the Chera country." Tencausy is in Tinnevelly. Colicood is Calicut.

Various principal towns assigned to Chera are Caroor, Avanashy, Salem, Tiroonagary in Tinnevelly, with places on the west coast. Among the titles given in poetical works to the Chera kings are Malayamaun or ruler of the western hills, and Colliverpan or ruler of the Collamullays now in Salem. Long lists of original Chera kings are preserved. This kingdom however extensive was not according to record at any time belligerent. Its strength was the commerce of the south-western ports. It is related that the Pandyan ruler when invaded by enemies was in the habit of resorting to the king of Chera. South Travancore itself has throughout history preserved an immunity from foreign invasion. When history is derived mainly from inscriptions, questions connected with alphabets assume importance. At the date when inscriptions were employed, the Northern Cheras used a primitive alphabet derived from the Cave form of the Southern Asoca alphabet; and this alphabet thus arising gave birth in turn to the modern Tooloo, Malayalam, and Tamul alphabets. Modern Tamul however retains in combination with the northern element a large proportion of the original Vattezhoot. The Southern Cheras retained the use of the Vattezhoot till a very late period[11].

79. On the Malabar coast north of Travancore, a part of the country which was early Brahminized, the word Chera was converted into Kerala; and this is the form used in Sanscrit for the whole Chera peoples and countries. In Malayalam 'keram' means the cocoa-nut palm. Different notices of this coast by foreign ancient writers are fully discussed in the foot-note at page (4) of the present volume, and in the statistical account of Malabar at page 99 of Volume II. Kerala was plainly an offshoot from Chera. The boundaries of Kerala are rather indeterminate. In its widest sense it extended from Gocurna to Cape Comorin. The Keralolputty, a concise account of the Nayars and their country, of which the original composition is ascribed to Shuncaracharya, divides Kerala into four khandams or provinces. The most northern begins at Gocurna and extends south to the Peroompoya or Pazhayanoor river five miles north by east of Mount Delly, and is called Tooloorajyam. The next extends from Peroompoya to Poothooputnam near Neeleshwar, and is called Cooparajyam. The third extends from there to Cannetty near Quilon, and is called Keralarajyam proper. The fourth extends thence to Cape Comorin and is called Mooshicarajyam. The two last have been subsequently called

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[11] Sketch of the Sequel to the History of Chera—*Early history.*—Very little is known of the early history of the Cheras. They continued in power, though constantly at war with Pandya and Chola, until Central Chera was overrun by the Congoos; the original dynasty then retired south and continued to rule over the country now known as Travancore. At some subsequent period the name Chera disappeared. Veera Kerala Vurman was king of Chera or Travancore in 311 A.D. His reign was long and prosperous. The capital at this time was Veera Keralapooram near Tiroovancode. This latter town afterwards became the capital, giving its name to the Travancore province; until it in turn was superseded as a capital by Trivandrum in the 14th century A.D. Veera Kerala was succeeded by his brother, about whom nothing is known, who in turn was succeeded by the nephew of Veera Kerala, whose name he bore. In 731 A.D. Veera Martaunda Vurman was king. In 824 Oodayamartaundavurman established the Collam or Quilon era. This king died in 830. Little is known of the history of the kingdom for the next five centuries, but probably the kingdom was reduced to very small limits. About 1330 Aditya Vurman was king. He was succeeded in 1335 by Veera Rama Martaunda Vurman, who reigned prosperously for forty years, and was then succeeded by Yeravivurman. This king died in 1382 after a reign of seven years, and was succeeded by Kerala Vurman. The next king was Chera Oodayamartaundavurman, who reigned for sixty-two years. He regained all the south-east possessions of Travancore on the Tinnevelly side. There is an inscription of this king's at Shermadevy, dated 1439. He was succeeded by Vanavanaud Mootta Raja, who died in 1458. From this date till the latter part of the seventeenth century there is no detailed account of the reigns of the Travancore kings, but merely a list of names. (2) *History from the end of the seventeenth century.*—In 1677 Aditya Vurman, the reigning king, was poisoned, and five princes of the reigning family were murdered. Oomayamma Ranee then became regent, the only surviving prince being a minor. At this period anarchy prevailed throughout the kingdom; and in 1680 a Mahomedan adventurer established himself at Trivandrum, who however was defeated and killed by the regent's general Kerala Vurman. In 1684 the young prince Ravivarman attained majority, and ascended the throne. He was succeeded in 1718 by Oonny Kerala Vurman. The next king Rama Vurman entered into a treaty with the king of Madura in 1726, acknowledging him as his superior. (3) *Martaunda Vurman.*—In 1729 Rama Vurman was succeeded by Martaunda Vurman. He found the kingdom disorganized, and entered into a treaty with the Pandyan king, by which he agreed to pay tribute in return for the loan of an armed force to enforce order in his own dominions. The sons of the late king entered into an organized conspiracy with other disaffected nobles, and arranged to murder the king at a public festival; the plot however was discovered, and the conspirators were executed or banished. Travancore subsequently had difficulties with Quilon, Cochin, and Cauyancollam, but peace was finally concluded. Later again on the death of the Quilon rajah, the Cauyancollam rajah annexed that kingdom, and was attacked by the Travancore rajah. The Dutch endeavoured to mediate without effect, and finally assisted Cauyancollam, but were defeated by Travancore and forced to retreat to Cochin. The Travancore rajah had commenced to negotiate a treaty with the French at Pondicherry for assistance against the Dutch, but on the defeat of the latter, this fell to the ground. Several Dutchmen who were taken prisoners by the Travancore king entered his service, and one DeLanoy became commander of the Travancore army, and rendered good service. In 1742 Cauyancollam submitted, and became temporarily tributary to Travancore. In 1753 a treaty was concluded between the Dutch and Travancore. At this time several petty Malabar rajahs were subdued. In 1755 the Zamorin of Calicut attacked Travancore, but was defeated. The internal administration of Travancore was at this period thoroughly reorganized. Martaunda Vurman died in 1758 and was succeeded by Wanjee Baula Rama Vurman. The history of Travancore at later dates will be found in a foot-note under the heading "Relations with Attached Native States.

the Malayalam country, and the two first the Tooloo or Canara country. The most southern part of the old Mooshicarajyam is properly a Tamul country. The Malayalam language, though extremely ancient, must be regarded as an offshoot from the Tamul. Malabar had its Coorumba or pastoral tribes similarly with the east coast. Then an occupation of palm-cultivators called Teeyar or Shaunaur ensued. The Nayars, a military Dravidian tribe, followed the palm-cultivators. Parshoorama's history indicates the intrusion of Brahmins into Malabar, and though in its details legendary is too significant to be neglected. Parshoorama, who was probably himself a ruler or general of a South Indian tribe, assisted the Brahmins against their rivals the Cshatriyas, and bestowed the upper plains of the Carnatic upon them. They however banished him thereafter as a homicide. Being at a loss for a domicile he asked one of the ocean, and its regent deity consented to yield him as much land as he could cover by throwing his battle axe. He threw the weapon from Gocarna to Cape Comorin, and the retiring ocean yielded him the coast of Malabar below the latitude of $15\frac{1}{3}$. The introduction of Brahmins into this province has already been recorded in the note on Sanscrit legendary accounts. According to the Brahmins themselves it was accompanied with a political organization of very unusual occurrence. The government was vested in a hierarchical council, formed of the Brahmins of the sixty-four districts into which the country was divided. The Brahmins then rented the land to the inhabitants of the country, reserving to themselves the right of property in the soil, and the management of public affairs. The defence of the whole or the use of weapons was intrusted to ten divisions and a half out of the sixty-four, and the executive government was consigned to one person and a council of four others appointed by the Brahmins of the sixty-four villages for three years each. Thus originated the custom of twelve years' rulers in Malabar. But the divisions of the country here detailed were very probably anterior to the arrival of the Brahmins. These arrangements in the course of time gave way to the election of one ruler of the military caste, who took an oath on his installation to acknowledge the authority of the Brahmins, and do nothing contrary to their interests or without their concurrence. The tradition indicates the domination of the original and more southerly Chera kingdom, which appointed local governors or Permauls. The first Permaul was named Keya Permaul, coming from a place Keyapooram, not identified; and his title was Cherma Permaul, ruler of Malainaud. The history of early foreign rule in Malabar is confused, and it is probable that Chera, Chola, and Pandya all exercised sway over different parts of it; or over the whole of it at different times. According to Arrian and Pliny, Malabar was included in the Pandyan kingdom in the early ages of Christianity. The traditions of Malabar proper recur in the records of Tooloova, and that province is said to have been apportioned in a similar manner. To Parshoorama is attributed the recovery from the ocean of the whole tract from Nassick to Cunya Comaury or Cape Comorin. The country so recovered was distinguished as the Seven Concans; named Kirauta, Virauta, Maharashtra, Concana, Heiga, Tooloova, and Kerala. Heiga and Tooloova are the modern Canara, and the first seat of the Cadambas hereafter to be mentioned. The Concan was in ancient, as in more modern times, the residence of uncivilized and piratical tribes. The Kirauta country indicates a country of barbarians. The term Maharashtra is of vague import, and it need not be supposed that it was the seat of a separate kingdom. At the time that Parshoorama recovered Tooloova and Heiga from the sea, it is stated that he obtained a population also, by converting the fishermen of the coast into Brahmins. The Concany Brahmins have peculiar habits. The native Vattezhoot alphabet was used in Malabar till the end of the seventeenth century, since when in the modified form of Kolezhoot it has been retained for documents framed by reigning families. The Moplahs also of Tellicherry and the islands made a special use of the Kolezhoot till quite recently, when the Arabic character was introduced[12].

[12] Sketch of the Sequel to the History of Kerala.—Even after the events mentioned in the text which belong to periods of some antiquity, the history of Kerala is very imperfectly preserved. The separation of sixty-four districts into two portions, thirty-two north and thirty-two south, indicates the distinction of Tooloova from Kerala; but on what account it was made is not recorded. Obscure traditions then occur of the temporary prevalence of the Booddha faith, and its final suppression by six learned Brahmins who came from other countries; and of the encouragement given by Coolashekhara, a prince, who is placed by some authorities in the fourth and by others in the seventh

80. Another portion of the old Cheramandalam was the Congoo country. Congoo means again in Tamul toddy. It has been suggested that both it and Coorg or Codagoo mean crooked from the shape of the country; but it is not a Dravidian custom to designate countries thus chorographically. Cooda is ancient Tamul for west; whence doubtless the meaning of Coorg. The Congoo country is not defined by native authority, but comprised approximately the present districts of Coimbatore and Salem. The ancient capital was Scandapoora; perhaps near the present Guzzelhutty pass, formerly the highway from Mysore to Trichinopoly. In the third century of the present era the Congoo capital was transferred to Talacaud on the Cauvery, and all the south of the Mysore country was then included. The seal of the Congoo people had the device of an elephant. The Congoo country was lost to the Cheramandalam at a date that may possibly have been the commencement of the Christian era, as will be mentioned.

81. On leaving the palm-cultivating tribes of the extreme south, the first nation of antiquity that occurs to the north-east are the Pallavas; or people of the low-lying rice-lands of the Carnatic below the ghauts. Pul means in Tamul "low." The Pully caste retain rice-cultivation to this day for their hereditary occupation. The attempts to connect the Pallavas with the Pahlavas, a foreign nation of the north-west and perhaps the πάκτυες of Herodotus, mentioned in Sanscrit writings, will not here be recognized. Nor does the word polliem or domain of the poligars seem to be of the same root. A title of the Pallava kings, though only in the Sanscritized lists, is Vurman; it is not known whether it is indigenous or not. The Pallavas were either the ruling power among the Coorumbar, or superseded them. The first direct mention of them is in the Booddhist records of Ceylon; in which it is stated that a large number of Booddhist ascetics came to Ceylon from the Pallava kingdom in B.C. 157, to attend the inauguration of a stoopa at Anooraudhapoora. From the numbers given it is considered that the Pallava kingdom was extensive. This people is not mentioned in the Asoca inscriptions, or by the most ancient foreign nations. The Pallavas are identified originally with the basin of the Palaur, the river which disembogues at Sadras, the σοβούρας ἐμπόριον of the Greeks. This country was later known as Tondeimandalam, or the country immediately surrounding the present capital of Southern India. They however soon extended their boundaries. Their first known capital was Conjeeveram. They are held to have been the constructors of the monolithic raths at Mauvellipore or the Seven Pagodas. They had also a military centre at Pozhalore near the modern Red Hills, 10 miles north-west of Madras. From the east coast they conducted an extensive commerce with both the western and eastern worlds. The device of the ruling house was at any rate at a later period a bull, and during the same period it was a patron in some form of the Sheiva religion[13].

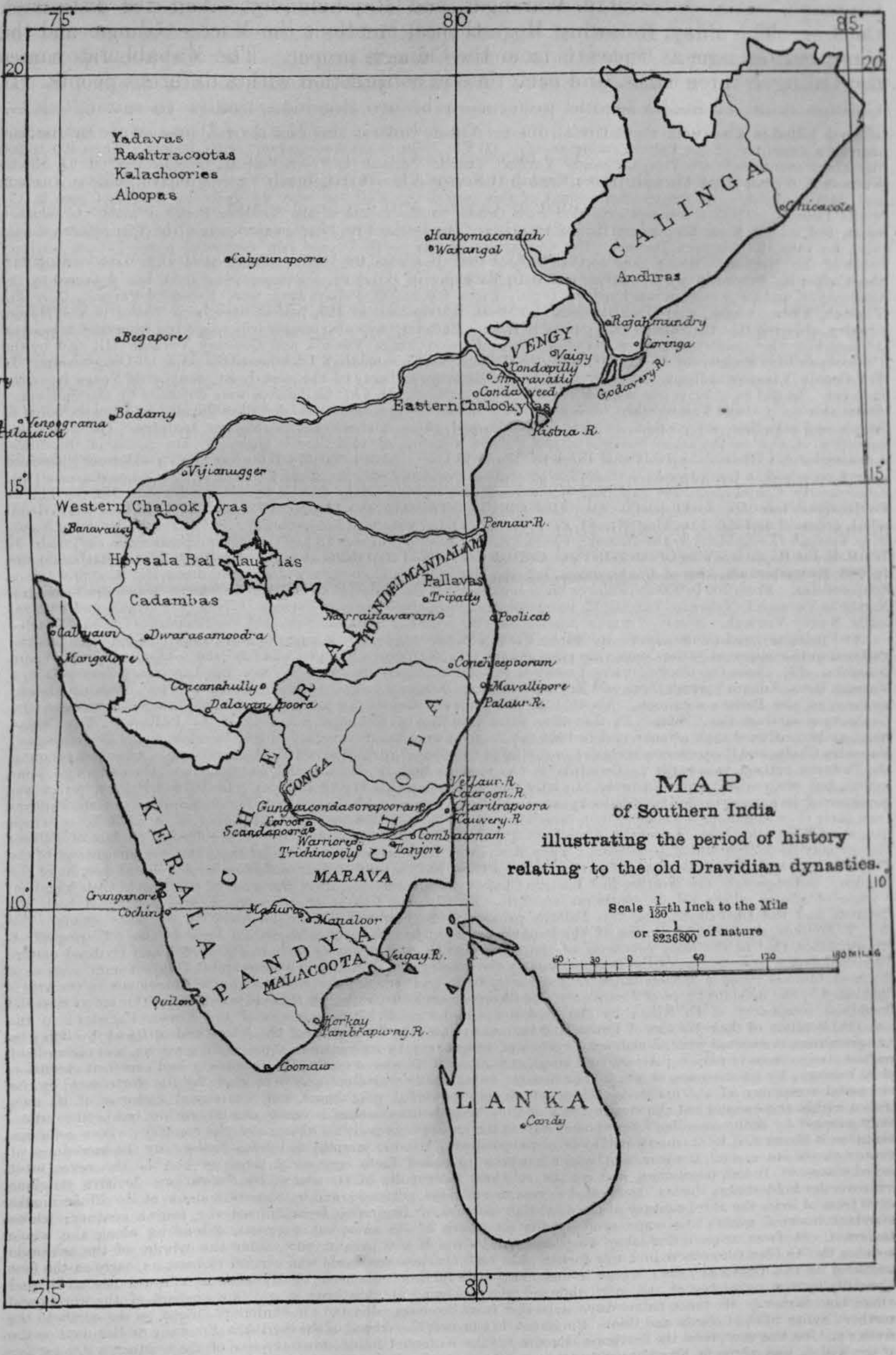
century of Christianity, to Brahmins to settle in Kerala. The last of the Permauls is celebrated for his conversion to the Mahomedan religion. He finally retired to Mecca, dividing on his departure the Kerala kingdom into eighteen or more distinct principalities. He sailed from Dharmapatam or Calicut. After residing some time at Jeddah he died. Before his death however he persuaded an Arab chief to sail for the Malabar coast with a number of followers in order to establish a Mahomedan colony and convert the inhabitants to that religion. They did so, and mosques were built, eleven in number. There is no reason to doubt the general accuracy of this story. A Rajah of Malabar undoubtedly became a Mahomedan, and whether he went on pilgrimage to Mecca or not, his change of faith was certainly the occasion of political convulsions, and was made the plea of general disobedience by his officers who took the opportunity of rendering themselves independent. These events occurred in the ninth century, and at the end of the fifteenth the Portuguese found the country broken up into numerous petty principalities acknowledging a sort of feudatory obligation to a few of the more powerful of their number, but all affecting independence. The lineal descendant of the last Permaul was the Rajah of Cochin. Amongst the superior states was that of Calicut, whose chief was entitled the Samoodry rajah or rajah of the sea coast, and who was thence termed Zamorin by the Portuguese. The origin of Calicut was subsequent to the partition of the country by Cherma Permaul. The foundation of another chieftainship furnishes an era in common use, and events in Malabar are ordinarily dated from the building of Collam, or Quilon, which occurred in the ninth century. In the eighth century Shuncaracharya was born. He wrote the history of Kerala, and made fresh improvements in the condition of the Brahmins, making stringent regulations, which are fully detailed. His reforms were promulgated at a great council. For a detailed history of Malabar, reference should be made to Volume II, page 99.

[13] SKETCH OF THE SEQUEL TO THE HISTORY OF THE PALLAVAS—*Early History; Moocoonty and other kings.*—At their first appearance in actual history the Pallavas are found ruling in a much larger area than is mentioned in the text, and apparently divided into two portions, with distinct capitals and kings at Conjeeveram in the south, and Vengy in the north. They were in fact the masters of the east coast, with a considerable territory inland. From 100 to 300 A.D. Pallava kings mentioned in inscriptions are Madhava Vurmah, Coolaketana, Neelacunta, and Moocoonty. Under the king last named the Pallavas made considerable progress, and Dharanicottah became a capital city. Moocoonty is said to have introduced Brahmins into the Pallava country. The erection of the Amravatty Booddhist tope has also been ascribed to this king, but by others it is ascribed to the Andhra kings who ruled west of the Telinga country. During the century 300 to 400 A.D. the kings mentioned are Chandra Vurmah, Vijaya Nundy Vurmah, Vijaya Booddha Vurmah, Scanda Vurmah, and Trilochana Pallava. About this time the Chalookyan king Jayasimha Vijayauditya invaded the Deccan,

82. The Calinga realm may be included among the most ancient. The origin of the term is not known, but the Malays still designate all inhabitants of the Coromandel coast as Klings. The name appears in the modern Calingapatam, Coringa, &c. The inscriptions of a later date speak of Tricalinga or three Calingas; supposed to be Amravatty, Warangal, and Rajahmundry. And the distinction must be old. Pliny, following Megasthenes, mentions the Macco Calingæ and the Gangarid Calingæ as separate from the Calingæ proper. The Mahabharat names the Calingas three times, and each time in conjunction with a different people. It

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and was killed in a war with the Pallavas. His son Vishnoovardhana continued the war, defeated the Pallavas, and married a daughter of the Pallava ruling family. (2) *The Pallavas the dominant race in the Deccan.*—From 400 to 500 the kings mentioned are Vijaya, Chanda Vurmah, Scanda Vurmah I, Veera Vurmah, Scanda Vurmah II, Simha Vurmah I, Vishnoogopa Vurmah, Simha Vurmah II, Scanda Vurmah III, Nundy Vurmah, Vijaya Booddha Vurmah, and Atty Vurmah. At the commencement of this period the Pallavas were decidedly the dominant race in the whole Deccan. Their dominions extended from Orissa to the mouth of the Southern Pennaur along the eastern coast, and inland along the eastern boundary of the Congoo-Carnauta kingdom, and across the Toongabudra north-west far into the northern Deccan. The Chalookyas of the north Deccan now conquered some Pallava territory south of the Nerbudda, where they settled. About this time also the Pallavas were more than once defeated by the Cadambas from the west. About 489 A.D. Badaumy in Belgaum, a Pallava strong hold, was captured by the Chalookyas, and Conjeeveram was burnt by them. From 500 to 600 Pallava kings were Rajendra Vurmah, Devendra Vurmah, Vishnoosimha, and Chandadanda. Pallava inscriptions of this period have been found in the Mysore country, showing that the Pallava rule extended there. Badaumy was also temporarily recovered from the Chalookyas. At intervals the country was then invaded by the Congoo kings Vilanda and Congany Vurmah III, and by the Chalookyan king Poolakeshy II. In 600 A.D. the Chalookyan Vicramaditya I conquered the king of Conjeeveram. In 610 Coobja Vishnoovardhana, the first of the new Chalookya dynasty of the east coast, conquered Vengy from the Pallavas. In 634 an alliance was made between the two nations. In 640 the Pallavas were defeated by the Cadambas. About this time Hwen Thsang the Chinese traveller visited Conjeeveram. He describes the city as being six miles in length, and says that the inhabitants were brave, learned, pious, and tolerant in religious matters. The flourishing condition of the north-eastern districts of the Pallava kingdom at this time is shown by the numerous Booddhist monasteries and Hindoo temples found there by Hwen Thsang. About 650–670 the great Sheiva reformer Shuncaracharya preached in Conjeeveram. About 700 the Pallavas were defeated by Shree Vallabha of the Congoo-Carnata; and subsequently Conjeeveram was captured by the Rashtracoota king Danty Doorga from Goozerat. In 733 the king of Conjeeveram was conquered by the Deccany Chalookya king Vicramaditya II, who in 745 again invaded the Pallava dominions, defeated and killed the king Nundy Poty Vurmah I, and captured Conjeeveram. In 758 the Pallava king Nundy Poty Vurmah II was killed by the Deccany Chalookya king Keerty Vurmah II, and Conjeeveram was again captured. In 768 Nolamba Rajah was king of the Pallavas, and about this period the Pallavas were conquered by the Rashtracootas. In 788 Hemasheetala, king of Conjeeveram, left the Booddhist faith, became a Jeina, and drove the Booddhists from Conjeeveram. From 700 to 900 the Pallava kings mentioned in the inscriptions are Simha Vishnoo, Mahendra Vurmah I, Narsimha Vurmah I, Mahendra Vurmah II, Parameshwara Vurmah, Narsimha Vurmah II, Nundy Vurmah, and Pallavamalla Nundy Vurmah. Nundy Vurmah carried on wars with the Sabaras (Sowrahs), the Nishaudas (probably a tribe on the Vindhyas), and the Pandyas. In 803 the Rashtracootas conquered the king of Conjeeveram. Soon after this the Pallavas were conquered by the Congoo king Gandadeva. In 830 Yereva Nolamba was the Pallava king, and in 894 Veera Nolamba. (3) *Decline of the Pallavas.*—From 900 to 1000 northern Pallava kings mentioned in inscriptions are Jaya Vurmah Deva, Ananta Vurmah Deva, and Rajendra Vurmah Deva, all reigning at Calinganagara. The Cholas now began to threaten the Pallava dominion. About 1050 the Pallavas formed an alliance with their inveterate enemies the Chalookyas against the Cholas. At this time Stira Gambheera Nolamba was king of the Pallavas. The Cholas meanwhile continued their attacks, and in 1064 the Pallavas were finally overthrown by Athonday, son of Coolotoonga I, Rajendra Chola, and Conjeeveram became the capital of the Chola province called Tondeimandalam. After this conquest the Pallavas retired westwards to Coontala in the modern Bellary district, and re-established themselves to some extent, but with much reduced power. In 1070 they paid tribute to the Chalookyas. In 1079 a Pallava prince was governor of Banavausy under the Chalookyas. In 1140 the Deccany Chalookya king Jagadecamulla drove the Pallavas from their then remaining possessions, which he annexed. The last mention of the Pallavas is in 1223, after which date they disappear from history as a nation. (4) *Summary of Pallava history.*—The different periods of Pallava history may be shortly stated as follows. They first came into prominent notice at about the commencement of the Christian era, and by the third and fourth centuries they had extended their dominion over a large portion of the Deccan. Subsequently the Western and Eastern Chalookyas successively drove them out of portions of their kingdom, a state of affairs which led to continual warfare. Finally the Cholas arose to power, and conquered both the Pallavas and the Chalookyas, and the Pallava princes were then reduced to the condition of petty chiefs. The Rev. T. Foulkes, the special historian of the Pallavas, sums up his researches regarding them to the following effect. He concludes, that in the early centuries of the Christian era, and probably earlier, a powerful and civilized empire flourished over a great extent of the Deccan, namely the empire of the Pallavas; whose capital, Conjeeveram, was one of the most famous cities of ancient India, magnificently built and strongly fortified; whose advancement in the arts is illustrated by the Booddhist tope of Amravatty, and its ornate enclosure rails; by the excavated monolithic seven-storeyed Booddhist monastery of Fa Hian; by the rock-sculptured monolithic monuments of the Seven Pagodas; by the remarkable pillar of the royal fort of Pozhal and its brazen gate; by its statues of the Jeinas and of its early kings; by its agriculture, connected with an elaborate system of irrigation; by its cocoanut topes, betel gardens, and orchards of grafted mango trees; by the superiority and singular fineness of its woven goods; by the variety and excellent execution of its coinage; by its sea-going ships; by the armour in which its war-elephants were clad; by its fortresses; by its successful resistance of the earlier invasions of its very powerful neighbours, and the signal victories of its own armies within the territory of the most mighty of those neighbours; whose revenue administration has been substantially adopted by each successive ruling power during the subsequent political changes of the country; whose religious condition is illustrated by its numerous Booddhist monasteries, Hindoo temples, and Jeina bastis; by the sacredness of the temples of its capital, Conjeeveram, which has been regarded from very early times as one of the seven most sacred places of Indian pilgrimage, and as the religious metropolis of the south; by the various decisive religious controversies held there; by its land endowments to religious persons; and by the settlement of Booddhist monks there from at least the third century of the Christian era, and of Brahmins from at least the fourth century; whose abundant internal wealth was augmented by the commerce of its numerous sea-ports, extending along the whole Eastern Coast from modern Cuddalore to Ganjam, into which the greater part, if not the whole, of the sea-trade between the Golden Chersonese and the farther east and the western world was carried at least as early as the first centuries of the Christian era; whose riches were still further enhanced by its various mineral resources, and especially by the possession of the only diamond mines existing at that time in any known part of the world; and whose boundaries in its most palmy days extended from the Nerbudda and the borders of Orissa on the north, to the northern limits of the Congoo and Chola kingdoms in the neighbourhood of the Southern Pennaur or Ponniaur on the south; and, on the west, from the northern extremity of the Western Ghauts, down the line of the western water-parting of the Kistna, and through Nundidroog and the neighbourhood of the Shevaroy Hills to the Bay of Bengal, on the east; an extent of territory which abundantly entitled it to be called by the Chinese pilgrim Fa Hian in the fourth century A.D., "the kingdom of the Dacshina."



MAP
of Southern India
illustrating the period of history
relating to the old Dravidian dynasties.

has been stated, but improbably, that the name of the country Telingana, and of the Teloogoo language, was derived by corruption from Tricalingana. The Sanscrit derivation from Trilinga or three lingams is still less probable. The people of that country were not lingam worshippers at so early a date. Teloogoo means the clear language. Calinga is alluded to in the earliest extant chronicles of India and Ceylon. The oldest Booddhist legends speak of the Calinga monarchs as rulers of a civilized country. There is an account which states that the Ceylon Vijaya was descended from a Calinga stock. Another tradition mentions a famine in the Calinga country in the second generation before Booddha, that is to say 620 B.C. Pliny places the Calingæ on the sea coast, below the Malli of Mons Maleus or the modern Mahendragherry. The name is on the whole rather that of a country than of a dynasty, and the limits must have varied. Ordinarily it indicates the country north of the Godavery and south of Orissa, and running inland as far as the Eastern Ghauts. But it has also been used to include Orissa, and even the country as far as the Ganges valley. The country known later as the Vengy country was that portion of Calinga which lay between the Kistna and Godavery rivers[14]. Amravatty, Warangal, Vaigy, Calingapatam, Chicacole, and Rajahmundry, were at different times principal places within the limits of Calinga. Sinhapoora is the Sanscrit name for an ancient capital city inland. Of the early history of this country little is known. It experienced successively, and in different parts, the rules of the Mowryas, the Andhras[15], the Pallavas, the Eastern Chalookyas, and the Ganapaties. Of these, the Mowryas belong to the most ancient period. Their capital was in the far north at Pautalipootra near the modern Patna, but the inscription of the Mowryan king Asoca at Jowgada in Ganjam, shows their occupation of the Calinga country. The inscriptions of this part of the country show no trace of the ancient Dravidian alphabet, and it is possible that the inhabitants never possessed it. The character which they afterwards acquired came direct from the Asoca alphabet, though independently of the Chera above-mentioned, and forming quite a separate family[16].

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[14] SKETCH HISTORY OF THE VENGY RULERS.—The Vengy kingdom, that is to say the country lying between the Kistna and Godavery rivers and extending from the sea a short distance inland, was ruled by the Pallavas till 610 A.D.; when it was conquered by Coobja Vishnoovardhana, the first king of the Eastern Chalookya dynasty. It is uncertain whether before this period the Vengy kingdom was independent, or merely a province of the Canjy kingdom; but different kings ruled at the two capitals. The capital of the Vengy kingdom was Pedda Vaigy, a few miles north of Ellore, in the Godavery district. Shortly after the conquest of Vengy by the Chalookyas, the country was visited by Hwen Thsang, who calls the kingdom 'Antalo' and the capital 'Pingkilo,' which may be the locative cases of Andhra and Vengy mistaken for nominatives. An inscription of A.D. 807 speaks of the Eastern Chalookya king as 'Lord of Vengy.' The Chalookyas ruled Vengy till 1022, when it was incorporated with the Chola kingdom. Vengy came into the possession of the Ganapaties of Warangal in the twelfth century, and followed the fate of that kingdom. The ancient Vengy is included in the modern Godavery district.

[15] SKETCH HISTORY OF THE ANDHRA DYNASTY.—The northern portion of the Presidency was included in the Andhra kingdom soon after the commencement of the Christian era. The Mowryas, who had their capital at Pautalipootra (Patna), were succeeded by the Sangas, and these again by the Canwas. The last Canwa king was murdered by his minister Shoodraca or Shipraca, who in B.C. 31 seized the throne, and founded the Andhra dynasty. The Greek geographers call them the ἀνδυραί, and Pliny mentions them as Gens Andaræ. Three dynasties successively ruled over the kingdom, namely the Andhras proper, the Andhrajauticas, or relatives of the Andhras, and the Andhrabhrityas, or servants of the Andhras. The whole of the north of the Madras Presidency down at least to the Kistna river, and probably considerably to the south of it, was included in their territories, but their occupation was only a military one. They were Booddhists in religion. About the beginning of the Christian era they were powerful, and possessed according to Pliny large armies. The dynasty continued to rule till about 430 A.D., but nothing is known of its history then beyond a list of kings. It is uncertain at what period the Andhras lost possession of their territory in this Presidency.

[16] SKETCH OF THE SEQUEL TO THE HISTORY OF CALINGA.—This ancient kingdom is mentioned by Pliny as 'novissima gens Gangaridum Calingarum.' The name Gangarid points to the Gungas, who were probably rulers of this country from an early period. An ancient inscription found at Chicacole in Ganjam gives the name of Nandaprabhanjana Vurmah, king of Calinga, at a period probably previous to the Chalookyan conquest of Vengy at the beginning of the seventh century A.D. This sovereign was a Gunga by origin. His grant is dated from the city of Saurapully. Two other inscriptions of later date give the name of king Indra Vurmah. His grants are dated from the city of Calinganagara. After the Chalookyan conquest in the seventh century, little or nothing is heard of the Calinga Gungas till about 977 A.D., when a period of anarchy ensued in the Eastern Chalookyan territory which lasted for about twenty-seven years, and the Calinga princes again rose to power for a time at Calinganagara. Kings mentioned in inscriptions of this period are Jaya Vurmah Deva, Ananta Vurmah Deva, who was reigning in A.D. 985, Rajendra Vurmah Deva, Devendra Vurmah Deva, and Satyavurmah Deva. It seems very likely that the dynasty of Ganapaties of Warangal, which was reigning over Calinga at the commencement of the twelfth century, was connected with the abovementioned Gungas of Calinga. The Ganapaties were a Gunga race, but opinions differ as to whence they took their rise. One suggestion is that they were descended from the Gunga family which was driven out of the Congoo country by the Cholas in 894 A.D., and another theory is that they were an offshoot of the Cholas. It seems much more probable that Calinga was their original home, and that they were the lineal descendants of the Gungas of Calinga. The first name known in connection with this dynasty is that of Tribhoovanamulla. He was succeeded by Prolarajah who was reigning at the commencement of the twelfth century A.D. He built Warangal, eight of his predecessors having ruled at Hanoomaconda. He is stated to have defeated and captured Teila III of the Western Chalookya dynasty. He was succeeded by Prataupa Roodra I, who extended his dominions considerably. He is said to have conquered Calinga, but in all probability this was part of the Ganapaty kingdom long before. He was succeeded by Ganapaty Deva, at whose death his widow Roodramma ascended the throne. She was in many respects a very remarkable character, her long reign of thirty-eight years being marked by an extremely able system of administration.

83. Knowledge of Southern India in the most ancient times by Foreigners.—The most ancient legends connecting India with the west are the invasions of Semiramis and Sesostris, the progress of Dionysus through the east, and the labours of Hercules. The invasions, if they occurred, touched only the north. The worship of Dionysus is connected with that of Vishnoo, the prevailing religion of the Ganges valley. Hercules is stated to have had for daughter Pandaia, a female ruler of the southern country extending to the sea which produces pearls. Arrian's name for the Indian Hercules is δορσάνης, the meaning of which is not known. He has been identified with the Balarama of the Brahminical pantheon. Balarama represents the agricultural population. In a broader view he may be said to represent Shiva. In the first book of the Odyssey the 23rd and 24th lines run thus:—*αἰθίοπες τοὶ δίχθα δεδαίαται ἔσχατοι ἀνδρῶν, οἵμεν δυσομένου ὑπερίονος οἱδ' ἀνιόντος.* The Eastern Æthiops indicate, if only indistinctly, the old inhabitants of India. The Edomites were the earliest people of antiquity who traded with Ophir. The time of return in these voyages was in the third year, though the absence was only eighteen months; a period which would be accounted for by passages made with the monsoons. Ophir is held to be Ceylon or the Malabar coast. The first authentic notice of India is afforded by the invasion of Alexander. That event was a mere partial inroad producing no lasting effects. Yet the narratives of the expedition are precious in so far as they show that the Hindoos were then precisely the same people as now; divided into castes, addicted to ascetic superstition, and abstruse philosophy. The expedition of Seleucus and the embassy of Megasthenes brought to light the existence of the great empire above-mentioned, of which the capital was Palibothra, on the Ganges. The interposition of the hostile monarchy of the Parthians cut off all land communications between Rome and India, but one embassy from this country reached the court of Augustus, proceeding by sea from the coast of Malabar. The Periplus of the Erythræan sea gives valuable information as to the commerce of Southern India in the first century of the Christian era[17].

Marco Polo, who visited Southern India towards the close of her reign, mentions her as follows:—"This kingdom was formerly under the rule of a king, and since his death some forty years past it has been under his queen, a lady of much discretion, who, for the great love she bore him, never would marry another husband. And I can assure you that during all that space of forty years she had administered her realm as well as ever her husband did, or better, and as she was a lover of justice, of equity, and of peace, she was more beloved by those of her kingdom than ever was lady or lord of theirs before." In A.D. 1295, Roodramma's daughter's son Prataupa Roodra having attained his majority, the queen abdicated in his favour. This king was one of the most powerful princes of his time, and was virtually the last of his line. In 1309 the Mahomedans under Malik Caufoor having conquered Devagherry, turned their attention to Warangal. The first campaign was unsuccessful, but in the second Prataupa Roodra was defeated, his capital captured, and the kingdom rendered tributary to Delhi. In 1320 Prataupa Roodra made an alliance with the Rajah of Devagherry against the king of Delhi. In consequence of this a Mahomedan army under Ooloogh Khan was sent against Warangal. The expedition, however, was unsuccessful, as the force that invested the town was attacked by disease, and finally compelled to raise the siege. In 1323 however a second large Mahomedan force captured Warangal, and Prataupa Roodra was sent a prisoner to Delhi. His son Krishna succeeded to a much reduced kingdom. In 1344 he joined a confederation of Hindoo states which succeeded in driving the Mahomedans out of the kingdom. The kings of Delhi seem to have taken no further steps against the Warangal kingdom, but in 1358 the Bahminy king Mahomed Shah plundered the country up to the capital, and only retired on being paid the expenses of the war. In 1371 war again broke out between Warangal and the Bahminy kingdom, in which the former was defeated, and Nagadeva son of the king Krishna lost his life. The king of Warangal now applied to Delhi for assistance, but without effect, and on being again attacked by the Bahminy king submitted and paid an immense ransom. A treaty was then made, by which the boundaries of the two kingdoms were settled. In 1424 Ahmed Shah Bahminy attacked Warangal and the reigning king was killed. Nothing more is known of the dynasty. The Warangal kingdom became part of the Bahminy dominions. After the dismemberment of the Bahminy empire at the end of the fifteenth century, Calinga formed part of the Cootbshahy kingdom of Golcondah. Aurungzeeb annexed Golcondah in 1688 and Calinga thus became part of the Moghul Empire, but the occupation was little more than a military one, and the Hindoo chiefs were left much to themselves till 1724 when Yoosuf Jah, the great Nizam-ool-moolk, took actual possession of the country. In 1753 this part of the country, then known as the Northern Circars, was ceded to the French by Salaubut Jung, Soobadar of the Deccan. In 1759 however the French were driven out by the English, and possession of the Circars was transferred to the English under a treaty with Salaubut Jung. This arrangement was ratified by the Moghul Emperor's firmaun in 1765, but the English did not finally take possession till the following year. The modern districts of Ganjam and Vizagapatam include the ancient Calinga.

[17] Sketch Account of the Knowledge of Southern India by Foreign Ancient Nations continued down to the Middle Ages—*Introduction.*—The Burmese frontier has been unfavourable to intercourse between India and foreign nations. The Himalayan mountains have blocked in the country on the north. Yet in the north-west passes of the Himalayas there has been opportunity for access, and the exterior sea-board of the peninsula has laid the country open to the visits of those travelling by sea. It is this last route, and especially that on the western side of India, which the visits of foreigners have mostly taken. Commercial ancient history is to a large extent the history of the struggle for the transit trade of the East by the Persian Gulf and Red Sea; and the modern history of the Old World has been modified by the discovery of the route to India round the Cape of Good Hope. The extent to which there is evidence of direct intercourse between Southern India and ancient nations varies, but even where there is no evidence much may be learnt from inference. (2) *Egypt.*—One of the earliest countries with which India had commercial relations was Egypt. Mummies wrapped in Indian muslins have been found in Egyptian tombs dating fully 2000 years B.C. The ancient Egyptians used indigo for dyeing purposes, which could have come only from India. The Biblical story of Joseph shows a caravan trade to Egypt from the East. An invasion of India in B.C. 981 by Rameses II, the Greek Sesostris, is recorded by Diodorus Siculus. He conquered the whole valley of the Ganges. When, after

84. Subsequent Dravidian History down to the Eleventh Century.—During this period the old Pandyan power waned, the Chera kingdom was contracted to small dimensions in the south-west, and the Chola power alone maintained itself. The Pallava and Calinga powers were confined within the neighbourhood of the east

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the death of Alexander the Great, Ptolemy son of Lagus obtained possession of Egypt (B.C. 233), he established the seat of government at Alexandria which soon became a populous and wealthy city. Ptolemy's son and successor, Ptolemy Philadelphus, in order to centre the Indian trade in Alexandria began the construction of a canal from Arsinoe (the modern Suez) on the Red Sea to the eastern branch of the Nile; but this work was never finished. The same king built Berenice on the west coast of the Red Sea, which became the medium of intercourse between the East and West for the next two hundred and fifty years, or as long as Egypt remained an independent kingdom. It is a matter of conjecture how far these facts indicate a direct commerce between the West Coast and Egypt. (3) *Assyria.*—The first warlike invasion of India mentioned by classical authors is that of Semiramis, widow of Ninus of Nineveh, whom Diodorus Siculus relates to have crossed the Indus with a very large army, but to have been then signally defeated and put to flight by an Indian prince named Strabrobates. This was in the year 2034 B.C. Semiramis erected a column describing her conquests as extending from Nineveh to the Itamenes (Jumna) eastward, and southward to the country which produced myrrh and frankincense; this last is the interior of India. There was a constant intercourse between India and the Assyrian empire by land. Probably Assyria knew nothing of Southern India. (4) *The Phœnicians.*—A trade between Europe and Asia was early carried on by the Phœnicians, and these people were employed in the later naval expeditions of Egypt. Hiram of Tyre (980 B.C.) extended his commercial operations to India, and in connection with the Hebrew King Solomon enjoyed a monopoly of the trade. It was carried on from harbours at the lower end of the Arabian Gulf, which the Phœnicians seized from the Idumæans. Among the products of India or Arabia mentioned in the Bible are found the following; cinnamon, cassia, sweet calamus, stacte or gum, onycha or skekeleth (a black odoriferous shell), galbanum (a gum or resin), aloes, myrrh, and frankincense. Of these, cinnamon and cassia can be attributed specially to India, and with all the others were brought originally through Arabia into Egypt, Judæa, Phœnicia, and Syria, and from those countries distributed around the coasts of the Mediterranean. The word India itself occurs in the book of Esther where it is spoken of as a province subject to King Ahasuerus. Two Hebrew words in the Bible are identical with Tamul, and point to an early intercourse with Southern India; namely 'tooki' (peacock), the Tamul தோகை, and 'ahalim' (a fragrant tree), the Tamul அகில். (5) *Persia.*—In B.C. 557 the frontier of Persia, then under Cyrus son of Cambyses I, extended to the borders of Hindostan; but Cyrus did not cross the Indus. Darius Hystaspes in B.C. 521 extended the dominions of Persia, and conquered part of India; the tribute paid by which was four times as much as that yielded by the rich provinces of Babylon and Assyria, and nearly a third part of the whole revenue of the Persian monarchy. In his reign Scylax of Caryanda in Caria sailed down the Indus from Peukelaotis, and then along the Arabian coast by the same course afterwards taken by Nearchus. The chief commercial intercourse between Persia and India was by land, commodities being transported on camels from the Indus to the Oxus, down which they were carried to the Caspian Sea, and thence distributed in various directions. Early in the sixth century A.D., the Persians under Chosroes Nouschirvan held a distinguished position in the East. Their ships frequented the harbours of India, and their fleet was successful in an expedition against Ceylon. Cosmas Indicopleustes, a Greek merchant who travelled in the East at this period, has mentioned the importance of the trade between Persia on the one side and Ceylon and India on the other. In proof of this he mentions a number of Nestorian or Syrian Christians found by him in Southern India, who were originally converted by missionaries from Persia, and were subject to the jurisdiction of the Archbishop of Seleucia. The Persians then monopolized the silk trade, both from India and China, owing to their power of molesting the caravans. They continued subsequently to carry on an extensive trade with India, which however was finally destroyed through the capture of Ormus on the Persian Gulf by the Portuguese about the beginning of the sixteenth century. (6) *The Greeks.*—An ancient legend, related by Ctesias and other writers, states that Dionysus visited India about 1450 B.C., and civilized its tribes, teaching them cultivation, the use of the grape, and the arts of civilization. Another legend connects Heracles with India. He is said to have married Pandaea, the daughter of an Indian king, and to have founded a long dynasty. The Greeks must have known of the existence of India as early as the heroic times, since Homer mentions the use of articles of Indian merchandize, which went by names of Indian origin; such as *κασσίτερος* 'tin' (the Sanscrit 'kasteera'), and *ἐλέφας* 'ivory' (connected with the Sanscrit 'ibha,' an elephant). These conceptions however were uncertain, and India was confounded with Ethiopia. Other Greek words which demonstrate an early intercourse with Southern India are *ὄρυζα* (rice), the Tamul அரிசி; and *κάρπιον* (cinnamon), the Tamul கருவா. The first Greek who clearly speaks of India is Hecataeus of Miletus (549–486 B.C). Herodotus (450 B.C.) also mentions India in his enumeration of the satrapies of Darius. According to the latter authority, the Indians paid a tribute of 360 talents of gold dust; this as stated above being four times as much in value as that yielded by the satrapy of Babylonia conjoined with Assyria. Herodotus has a fable that ants bigger than foxes dug up this gold. He mentions cotton, which he describes as wool growing on trees; and he speaks of large reeds, probably bamboos. He says of the tribes of India, that they were exceedingly numerous and spoke a variety of languages. He mentions cannibals; also tribes who entirely abstained from animal food. His knowledge was apparently confined to the countries on the Indus. Ctesias (400 B.C.) who was for many years physician to Artaxerxes Mnemon, wrote a work called *ἰνδικά*; but it contains many fabulous accounts. In the year B.C. 334, Darius Codomanus, successor of Arses, was on the throne of Persia; while Alexander, a youth of twenty years of age, had succeeded to the monarchy of his father Philip of Macedon, and was planning a universal extension of his dominions. In the spring of that year Alexander invaded the territories of Persia, and defeated Darius, first at the Granicus in Bithynia; then at the decisive battle of Issus, in Cilicia (B.C. 333). After a two years' campaign, wherein Tyre, Jerusalem, and Egypt were subdued, he finally defeated the Persian king in B.C. 331, at the battle of Arbela, near the mountains of Kurdestan. Darius was soon afterwards murdered by one of his officers, Bessus, satrap of Balkh; and Alexander laid waste the satrapy to avenge the death of his noble enemy. In 327 B.C. Alexander marched towards India. With considerable difficulty he reduced Afghanistaun, and then crossed the Indus into a territory called Taxila. With the chief of this country he made an alliance, the Hindoo being anxious to secure the co-operation of the invaders against the great rajah, Porus or Pooroo, reigning in Canouj and enjoying the monarchy over all Hindostan. In 326 Alexander advanced, and was resolutely opposed by Porus on the eastern bank of the Jhelum, or Hydaspes river. The Hindoos were defeated in a pitched battle; but Alexander finding his army unwilling to advance further into India, retraced his steps, took his whole force on board a vast number of galleys, and sailed down the Hydaspes to the Indus. After severe fighting at several places on the route, he reached the mouth of the Indus in safety, and divided his army into two parts, one division under Nearchus, having orders to sail up the Persian Gulf, while Alexander himself went by land. This was the last invasion of India before that of the Mahomedans. Alexander believed in the ancient legends of Dionysus and Heracles. When he captured the strong fortress of Aornus situated between the Indus and the *κωφὴν* (Cabool), he rejoiced that he had reduced a stronghold which Heracles himself had not been able to take. Subsequently, at the point where the Hydaspes (Jhelum) and the Acesines (Chenaub) unite, he encountered a tribe, which from their use of clubs and the sacred mark on their faces were thought by the Greeks to be the descendants of Heracles. And when, having overcome this tribe, they entered the country of the Oxydracæ and Malli, Alexander encouraged his men by saying that they should pass the limits of the conquests of Dionysus and Heracles. The followers of Alexander the Great gave a fairly accurate account of the country. The works of the writers Bœto, Diognetus, Nearchus, Onesicritus, Aristobulus, and Callisthenes are lost; but their substance is condensed in Strabo, Pliny, and Arrian. Onesicritus was the first western writer to mention Ceylon. Other and later writers were Megasthenes and Deimachus,

coast. These changes were caused by pressure from the nations whom several centuries had bred on the uplands of the Deccan. It is reasonable to infer that the reason why the Cholas in the valley of the Cauvery maintained nevertheless a superiority was that Brahmins had imparted to them their civilization.

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ambassadors from Seleucus to Chundragoopta and his son Allitrochades at Palibothra or Patna; Patrocles, admiral of Seleucus who visited the west coast; Timosthenes, admiral of Ptolemy Philadelphus Dionysius, sent by the same king on an overland expedition to India through Persia; and Eudoxius sent on a voyage of discovery to the west coast of India by Ptolemy Euergetes in B.C. 140. To Alexander belongs the credit of having perceived the value of Indian commerce, and of having by the foundation of Alexandria given a direction to the course in which it flowed for eighteen subsequent centuries, until the discovery by the Portuguese of the route by the Cape of Good Hope. The Macedonians were astonished at the riches and close population of the Punjaub. Their accounts were exaggerated, as they say that Alexander subdued 5,000 cities as large as Cos, but nevertheless enough remains to show that Northern India at that time was in a highly flourishing condition. The information given by these writers is varied and extensive. All native commodities which to this day form the staple of Indian commerce were fully known to them; namely rice (ὄρυζα), cotton and muslins (βύσσος), sugar-cane (which they call honey-bearing reeds), and silk (σηρικά). None of these articles had yet been brought into Greece or any part of Europe by sea. The Macedonians also described the most striking characteristics of the Hindoos, in their superstition, policy, manners, habits, and customs, as follows. There were seven castes. Namely the philosophers or Brahmins (φιλόσυφοι, σοφισταί); the husbandmen (γεωργοί); the herdsmen, shepherds, and hunters (βουκόλοι, ποιμένες, θηρευταί); the artisans (τεχνῖται); the soldiers (πολεμισταί); the inspectors of manners or police (ἔφοροι, ἐπίσκοποι); and the councillors and assessors. This classification is mainly correct. The manner of hunting and taming the elephant are correctly described by Arrian. There were no slaves in India; Menoo mentions seven sorts, but probably the servitude was so light as to escape the notice of strangers. Gold was collected in rivers. Chintzes (σινδόνες εὐανθεῖς) are mentioned. The palm called τάλα (talipot) is mentioned. The natives wore cotton garments reaching to the middle of the leg. Parrots and monkeys are correctly described. The use of strigils and shampooing is mentioned. Intermarriages between the different castes were forbidden. Megasthenes denies that the Indians possessed a knowledge of writing; Nearchus however says that they wrote on a sort of cloth, and that these letters were beautiful in form. Mention is made of rice planted in water; and of wine made from rice, or arrack. The natives are described as being vegetarians, only the hunters eating meat. The men wore earrings, dyed the beard, used umbrellas, carried daggers, and had turbans on their heads. The natives always followed the hereditary occupation of the caste. They perforated the nose and lips. The king was attended by a guard of women. Two sorts of philosophers are described, viz., βράχμανες and γερμᾶνας (probably Γ in the manuscript is a misprint for Σ); that is to say Brahmins proper and Shramanas or ascetics. The penances of the latter are detailed. These particulars show the Macedonians to have been careful observers. Eratosthenes (B.C. 200), librarian of Alexandria in the reign of Ptolemy Euergetes I, includes India in his treatise on geography. Of the parallels of latitude drawn by him, the most southern passed through Taprobane (Ceylon), and others through the south coast of India, Palibothra (Patna), and the Ganges and Indus; while two of his parallels of longitude passed respectively through the mouths of the Ganges and Indus. He derived his information on Indian subjects from the Macedonian writers. The next reliable Greek historian is Agatharchides (177 B.C.), president of the Alexandrian library, much of whose information was afterwards copied by Diodorus Siculus, Strabo, Pliny, Pomponius Mela, and others. In Diodorus Siculus (circiter B.C. 40) is found an account of the discovery of Ceylon, in which fact and fiction are mingled. According to this account, Iambulus a merchant having been captured by pirates and taken to Æthiopia was in compliance with a solemn rite exposed in a boat, which after a voyage of four months reached Ceylon. Here he resided seven years, and then made his way back to Greece through India. Some of the facts he narrated bear the stamp of being genuine. For instance the stature of the natives, and the flexibility of their joints; the length of their ears, bored and pendent; the perpetual verdure of the trees; the attachment of the natives to astronomy; their worship of the elements, particularly the sun and moon; their cotton clothes; the custom of several men having a wife in common; the equality of day and night; the 'calamus' or maize. Iambulus says of the alphabet that the characters were originally seven, but became twenty-eight, by four various forms or combinations of each; an account which agrees exactly with the facts. It has been alleged as a reason for doubting Iambulus' veracity, that he says he was in Ceylon seven years, yet never mentions cinnamon. Other Greek authors who wrote about India are Strabo (20 A.D.); the author of the περίπλους τῆς ἐρυθρᾶς θαλάσσης (probably a merchant living in Egypt in the first century A.D.); Arrian (130 A.D.); Ptolemy (circiter 30 A.D.) and Cosmas Indicopleustes (535 A.D.). Strabo's account of India is taken almost entirely from Megasthenes, or from the still earlier Macedonian writers, and as he appears to have had no later sources of knowledge his information is not perfectly satisfactory. The information contained in the περίπλους is both curious and interesting. It states that the first place in India at which trading vessels starting from Egypt touched was παττάλα on the Indus. Hither they imported woollen and linen cloth, silver, money, and wine; in return receiving spices, gems, silk, and pepper. The next port was βαρβαρίκη at the mouth of the Indus. Here the imports were apparel, very fine cottons, topazes, coral, storax, frankincense, glass vessels, plate, spice, and wine; and the exports were costus, bdellium, spikenard, emeralds, sapphires, furs and silks from China, and indigo (ἰνδικὸν μέλαν). The most considerable emporium on the coast was βαρύγαζα (Broach). The imports at this place besides those already mentioned included brass, tin, lead, glass, perfumes, and Italian Laodicean and Arabian wines. Among the exports were gems, ivory, myrrh, and cotton. At μούζιρις (Cranganore) additional exports were pearls, diamonds, rubies, betel, tortoise-shell, and pepper of the best quality; while the imports included besides the articles already mentioned, spice in large quantities. The ordinary gems taken from μούζιρις and νελκύνδα were not found in India, but were brought from Taprobane or Ceylon. They probably consisted of the varieties of what are now called corundum; viz., sapphire, ruby, &c. Separately the ἀδάμας is mentioned as being sent from these ports, which indicates undoubtedly diamonds, the production of Indian mines. The correctness of this account is confirmed by comparing it with the section of the Digest of the Roman Law, entitled 'Species pertinentes ad vectigal,' in which the Indian commodities subject to the payment of duties are enumerated. The author of the περίπλους enumerates various other Indian ports along the coast as far as the mouth of the Ganges, but with a few exceptions his knowledge of these places is slight. His description of κομάρ or Cape Comorin, on the other hand is accurate. Ptolemy (A.D. 130), in forming his general system of geography, adopted the ideas, and imitated the practice of Hipparchus, who lived nearly four hundred years before his time. That philosopher in order to ascertain the position of the stars in the heavens with accuracy, measured their distance from certain circles of the sphere; computing it by degrees, either from east to west, or from north to south. The former was denominated the longitude of the star, the latter its latitude. This method he afterwards applied to geography, but it fell into disuse until revived by Ptolemy. In spite of such assistance, Ptolemy's delineation of the shape of the Indian continent is extraordinarily erroneous, as he has made the peninsula stretch from the κόλπος βαρυγαζηνός or Gulf of Cambay from west to east, instead of extending as it should do from north to south. His information however with respect to the country in detail, and the situation of particular places, was more trustworthy. He mentions correctly most of the places on the coast, and is the first writer to describe the six mouths of the Ganges. Identified localities in Southern India mentioned by him are capes κῶρυ (Rameswaram), καλλιγικόν (Point Calimere), and κομάρια (Comorin); mount βηττιγώ (the Southern Ghauts, in Tamul பொதியம்); gulfs and bays γαγγητικός (Bay of Bengal), ἀργαρικός (Palk's Bay), and κολχικός (Gulf of Manaar); rivers μαίσωλος (Kistna), τύννα (Pennair), σωλήν (Tambrapurny), and χάβηρος (Cauvery); tribes and cities, the καλίγγαι, with their chief towns πάρθαλις and δανδάγουλα (Calingapatam), the μαισῶλοι, with their chief towns πίτυνδρα (Dharanicottah in Kistna district), and ἀλλοσύγνη (Coringa), the ἀρούαρνοι chief town μάλαγγα (Mundarajya the modern Nellore), the σῶραι (Cholas), with their

85. The Cadamba nation proceeded in the first instance from the west coast region now styled Canara, but then known as Heiga and Tooloova. Their principal capitals were Palaushaca now Halsee in the Bombay Presidency due west of Kurnool; and Banavausy near the north-western confines of Mysore in nearly the

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towns ἀρκατοῦ βασίλειον σῶρα (Arcot) and ὄρθουρα βασίλειον σώρναγος (Warriore), παραλία σωρητῶν and παραλία σωρίγγων, (the coasts of Tinnevelly and Madura), πανδίονος χώρα, (the Paundy kingdom), with its capital μόδουρα (Madura), the καρεοί (in Tinnevelly), κόλχοι (Korkay), κοττιάρα (Cottaur in Travancore) διμυρική (Malabar), with its chief towns κάρουρα (Caroor) and τύνδις (Cadaloondy), νίτρα (Mangalore), ἱπτόκουρα (Nundair or Hyderabad), βαίτανα (Beedar), σίμυλλα (near Bassein), ὀμενόγορα (Ahmednugger), and τάγαρα (Deogarh). Of the places mentioned by Ptolemy belonging to Southern India, twenty-three end in ουρ or ουρα the Tamul ஊர், a town; for instance σαλούρ, κορέουρα, ποδοπέρουρα, κ.τ.λ. The loadstone rocks of India, which attracted so much notice from several early writers, were known to Ptolemy. They may be identified with certain hill ranges in Southern India which mainly consist of magnetic iron. Early writers connected their presence with the fact that many of the vessels and boats engaged in the Indian coasting trade contained no iron in their construction, and hence arose the well-known fable about the injury to shipping caused by the loadstone rocks. The surf boats however have no iron in their construction, because bolts or nails would render them too rigid; and the boats of the Laccadives and Maldives have none, because iron ores do not occur in coral islands. Scholasticus the Theban who visited India about 400 A.D., in company with a priest, and reached μούζιρις (Cranganore) on the Malabar coast mentions the μαγνῆτις (loadstone) rocks which attract iron-bound vessels to their destruction. This author also speaks of the thousand islands of the μανιόλαι, by which are meant the Laccadives and Maldives. The last Greek author who mentions India is Cosmas Indicopleustes (A.D. 535), a monk who had formerly been a merchant. The main design of his chief work, called τοπογραφία χριστιανική, is to prove that the earth is an oblong plane, 12,000 miles long from east to west and 6,000 miles broad from north to south, surrounded by high walls and covered by the sky as with a canopy; and that day and night are caused by an extremely high mountain in the north, round which the sun moves. Some of the facts mentioned by him seem to be the result of personal observation. He was well acquainted with the west coast of India, and mentions μαλέ (the Malayalam country) as the chief seat of the pepper trade, and gives some particulars relative to σιελεδίβα (Serendib or Ceylon). According to him, around it there are a multitude of exceedingly small islets (the Maldives). All contain fresh water and cocoanut palms (ἀργέλλια; Sans. narikela; Arabic narghyl). These islands lie as close as possible together. He says that the exports of καλλίανα (near the modern Bombay) were brass, sesamine (sisoo) logs, and cotton stuffs; of σινδός (Scinde), castorine, musk, and spikenard; and that from τσίνιτσα (China), and the other countries beyond Ceylon, came silk, aloes, cloves, nutmegs, and sandal-wood. He also states that nearly every large town in India had its Christian church under the Archbishop of Seleucia. Cosmas mentions Persians as being rivals with the Romans in the Indian trade. A considerable change in the nature of the commercial intercourse between Europe and India was occasioned about this period by the introduction of the silkworm into Constantinople, and thence into Greece. This was effected during Justinian's reign (A.D. 527–265) by two Persian monks; who in the course of their missionary labours, penetrated to China, and managed to convey silkworm eggs surreptitiously out of the country, hidden in a hollow cane. A large number of these insects was soon reared in different parts of Greece, upon which the demand for silk from the East diminished. Eustathius, Archbishop of Thessalonica (1180 A.D.), in his commentary on the περιήγησις τῆς γῆς of Dionysius Periegetes, mentions the Maldives as follows:—'Others on the contrary have it that Maldivia was originally one vast island, but that a resistless ocean burst in upon it far and wide, and formed νήσους ἀπειρέσιας, a countless number of islets.' (7) *The Romans.*—The Romans from the time that they first entered Egypt and Arabia in Augustus' reign (B.C. 31) continued to maintain a footing on the coast of the Red Sea, and carried on an extensive commerce with India, the luxurious products of which were in great demand at Rome. A proof of their progress in the East is afforded by the embassy sent to Augustus by the Madura ruler. Strabo says it was from king Pandion, and others say it was from king Porus. This latter name however was already known in Europe in connection with Alexander's invasion of India, and was introduced only as a general name for an Indian king. The name Pandion had never yet been heard in Europe, and therefore must have been the real name. The event represents no doubt a voyage to Europe from the South Malabar coast. This embassy gave valuable and curious presents including a serpent ten cubits long. In the letter the king described himself as holding sway over 600 kings, and asked for Augustus' friendship. In the embassy was an Indian named Zarmanochegas (that is to say Chegas the Shramana or Booddhist ascetic) from Barugaza (Broach); who accompanied Augustus to Athens, and there committed self-immolation, as Calanus had done in Alexander's time. Zarmanochegas' tomb, known as that of the Indian, was to be seen as late as Plutarch's time, the epitaph being ΖΑΡΜΑΝΟΧΗΓΑΣ ΙΝΔΟΣ ΑΠΟ ΒΑΡΓΟΣΗΣ ΚΑΤΑ ΤΑ ΠΑΤΡΙΑ ΙΝΔΩΝ ΕΘΗ ΕΑΥΤΟΝ ΑΠΑΘΑΝΑΤΙΣΑΣ ΚΕΙΤΑΙ, 'here rests Zarmanochegas, an Indian from Barugaza who rendered himself immortal according to the custom of his country.' In Virgil and Horace are found many allusions to India, but of a rhetorical character. Virgil mentions the Ganges and the Gangarides, and speaks of ivory as coming from India; and Horace represents Augustus as leading in triumph the Seres and the Indi. The Romans also received Indian commodities by the route of the Persian Gulf and the Euphrates, through Mesopotamia to Syria and Palestine, the head-quarters of the trade being Palmyra, which owed its importance to its being the only cultivable spot in the desert. A bold discovery of the same period imparted an entirely new character to the navigation of the Indian Ocean; namely the discovery of the south-west monsoon in the reign of Claudius by a seaman named Hippalus. This imparted so great an impulse to trade, that it soon became a subject of apprehension at Rome lest the empire should be drained of its specie to maintain the commerce with India; silver to the value of nearly a million and a half sterling being annually required to pay for the spices, precious stones, and silk imported through Egypt. The sea-coast of India now became better known, and the great work of Pliny, compiled less than fifty years after the discovery of Hippalus, serves to attest the additional knowledge collected during the interval. Pliny the elder (23–79 A.D.) and Pomponius Mela (Circiter 30 A.D.) who wrote soon after Strabo, were able to add somewhat to the previously acquired knowledge of India. For a better account of Ceylon they were indebted to the fact that a Roman ship engaged in collecting the revenues on the coast of Arabia was caught by the monsoon and carried to the north-west coast of Ceylon. The Romans were well received by the king who finally sent an embassy to Rome, and from these envoys Pliny learnt that Ceylon then contained five hundred towns and villages, of which the chief was Palesimunda. The envoys also described coral, pearls, and precious stones of various sorts, the luxuriance of the soil, the natural wealth of the people, and the mildness of the government. Pliny gives the measurements round the coast of India with some minuteness, and with less exaggeration than his predecessors. In his list of the Indian races, mostly borrowed from Megasthenes, he says:—"Next follow the Nareæ, enclosed by the loftiest of Indian mountains, Capitalia. The inhabitants on the other side of this mountain work extensive mines of gold and silver." Capitalia has been identified with Mount Aboo; but may be taken to express the Western Ghauts generally. The Nareæ are evidently the Nayars of Malabar. In that and the neighbouring regions are situated the ancient gold mines which have attracted so much notice of late years, and there are also enormous ancient mines in the districts of Cuddapah and Kurnool, from whence argentiferous galena was extracted, and from this ore silver was no doubt obtained. Marinus of Tyre (120 A.D.) is the latest Latin geographer who mentions India. His information when compared with that given in the περίπλους shows a great advance in the knowledge of the east coast of India, and of the countries still more to the eastward. It is impossible to identify the places mentioned by him, but his general idea of the shape of the coast is a correct one. (8) *China.*—There are two means of communication between India and China, by land and by sea. The trade in silk was carried on by land through Bactria to the Indus, then down the river to Scinde, and thence to Goozerat. The first authentic mention of this trade between China and India is in the περίπλους in which it is said that silk was imported from a city called θῖνα (China) to βαρύγαζα (Broach)

latitude of Cuddapah, with Haungal adjacent to Banavausy. In the early centuries of the Christian era these people possessed the western half of the present Mysore. Their banner was a monkey, and their signet a lion. The Congoo country south of Mysore already mentioned had at the same period a dynasty of its own.

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overland through Bactria, and also down the river Ganges. This trade must be of very great antiquity. The first Chinese traveller who has left an account of his travels in India is Fah Hian (A.D. 399–414), who with four others came to India in order to obtain authentic copies of the Booddhist scriptures. Their travels consequently were almost exclusively of a religious character, and consisted of a pilgrimage to sacred places. Fah Hian visited in succession all the resorts of pilgrimage connected with Shakya Moony's life, namely Caupila, Cooshanagara, Rajagriha, Gya and Benares. After passing three years at Palibothra, he went by sea to Ceylon and finally returned to his country, without visiting the south of India. The next Chinese traveller was Hwen Thsang (A.D. 629–645), a man probably of higher culture than Fah Hian. He did not confine his observations merely to his own religion. Apparently the surface life of the towns was much of the same as at present, as he describes the tortuous streets, the brick houses and verandahs plastered with cow-dung, the roofs of bamboo and dry grass, and the absence of butchers' shops and wine-sellers. The administration of justice was extremely mild, and the whole system of government was in his view based upon the benevolent spirit of Booddhism. He found India divided into a number of petty kingdoms, of which the chief was Magadhah, ruled by Seelauditya. Southern India was divided into nine kingdoms, viz., Calinga, Cosala, Andhra, Dhanacataca, Choolya, Dravida, Malacoota, Concana, and Maharashtra. On his way south Hwen Thsang passed through Ganjam, the king of which was probably Laulitendra Keshary of the Orissa annals, who is said to have reigned for nearly sixty years (A.D. 617–676). Hwen Thsang visited this place in 639 when the king was at the height of his power, but only four years later when the pilgrim revisited Magadhah he found that Harshavardhana of Canouj had just returned from a successful expedition against Ganjam. Traversing Calinga, Andhra (capital Warangal), and Chola, Hwen Thsang stopped at Canjy (Conjeeveram), the capital of Dravida. At this place he met about 300 Booddhist monks who had left Ceylon in consequence of disturbances caused by the king's death. By reckoning, Hwen Thsang arrived there in 639, which in the list of Ceylon kings is the year in which one of them was the victim of an insurrection. In consequence of this Hwen Thsang abandoned his intention of going to Ceylon, and proceeded along the west coast, passing through Travancore, Malabar, Concana, Maharashtra, Broach, Malwah, the Vallabhy kingdom in Goozerat, Oojjein, Chittore, and Scinde. He then returned to China. Hwen Thsang enumerated the number of Booddhist monasteries and Brahminical temples in each place that he visited in the south, and thus left an approximate record of the progress of Booddhism in that quarter as compared with Brahminism. In Calinga there were ten monasteries and two hundred temples; in Chola the monasteries were nearly all in ruins, but there were many temples; Dravida contained a hundred monasteries with ten thousand monks, and eighty temples with numerous naked Brahminical heretics. On the west coast he found the people illiterate and most of the monasteries in ruins, but there were hundreds of flourishing temples and numerous heretics. In Concana he found a hundred monasteries and many more temples. In Maharashtra also the heretical sects were very numerous. In Malwah Brahminism and Booddhism were both flourishing. The king of Goozerat, named Dhroovapat, was a zealous Booddhist. At Oojjein and Chittore however Booddhism was being superseded by Brahminism. (9) *Arabia.*—The connection between Arabia and this country belongs both to the most ancient and to mediæval times. The old Hamite or Cushite races of Arabia, the sun-burnt Æthiops of the Greeks, were the sailors of the farthest antiquity; and their descendants retain their characteristics. Tribes and communities of old Cushite or Arabian origin are found on every coast and island of the Indian Ocean. Ephorus (B.C. 399–334) states expressly that the old Æthiopians occupied the most distant southern region of the earth, which would include the southern coasts of both Asia and Africa. The description given of Sabæa by a reliable Greek historian, Agatharchides (B.C. 177), points to a degree of prosperity which could have been due only to a monopoly of the rich trade of the East; and the nearest eastern country was India. In more recent times, or in the fourth and fifth centuries A.D., Arab merchants began again to establish themselves on the Malabar coast. A considerable revolution in the intercourse of Europe with the East was occasioned by the rapid predominance gained by Arabia under Mahomed and his successors, which lasted from the seventh to the thirteenth centuries A.D. Persia and Egypt were among their earliest conquests, and in a very short time the modern Arabs advanced far beyond the limits of ancient navigation. Bussorah was founded (A.D. 635) by the Caliph Omar as a centre for the new maritime trade, and soon became an emporium second only to Alexandria. The effect of the Arabian conquests was to exclude the nations of Europe almost entirely from any intercourse with the East except by a tedious and dangerous land journey; for the Arabs held the seas. In comparing Arabian treatises on geography with those of the Greeks, it will be found that the Arabs were more cautious in confining themselves to statements derived from safe authority, or from personal observation. The well-known voyages of Sindbad the Sailor belong to the ninth century. In the fourth voyage he visited Malabar where he found men gathering pepper. In the fifth voyage he was wrecked on the country of the 'Old Man of the Sea,' probably on the Concany coast. Thence he crossed the sea to the Maldives and back again to Malabar; passing on to the peninsula of Comorin, where he found 'aloes-wood' called 'santy' (sandalwood), and to the pearl-fisheries of the Gulf of Manaar. Another Arabian work of travel belonging to this period is the 'Voyages of two Mahomedans,' and professes to give an account of the countries lying between Bussorah and Canton. The author of the first part, a merchant named Sooliman, mentions the 'Sea of Lar' washing Goozerat and Malabar, the Lankhabaloos or Nicobars, and Serendib (Ceylon). Ibn Khoordadbah (A.D. 870) mentions porcelain, sugar cane, pepper, aloes-wood, cassia, silk, and musk as articles of Indian commerce. Masoody of Baghdad who visited India about A.D. 916 gives nutmegs, cloves, cubebs, camphor, areca-nut, sandalwood, and aloes-wood as productions of the Indian Archipelago. He describes India as divided into four kingdoms; the provinces on the Indus capital Mooltaun, a kingdom having Canouj for its capital, Cashmeer, and Goozerat which he says is the greatest and most powerful. Edrisy (A.D. 1100) mentions the fine cotton fabrics of Coromandel, the pepper and cardamoms of Malabar, and the nutmegs and lemons of Mansura on the Mehran (Indus). He names the Concans as the country of 'Saj,' that is to say of the 'saug' or teak tree. Ibn Batuta (1304–1377) of Tangiers was the greatest traveller of the Arab nation. He lived at Delhi eight years, and was then sent on an embassy to China by the Sultan Mahomed Toghlak. He embarked from Kinbaiat (Cambay), and sailed round the coast, stopping at Calicut, where he was honourably received by the Zamorin; he then went on to Ceylon, touching on his way at Hunawar (Honore). He finally sailed for China from Bengal. He mentions Collam (Quilon) and Calicut as among the finest trading ports in the world. Among the productions of the Indian Archipelago he describes gum benjamin, aloes-wood, cloves, camphor, and sandalwood, and also mentions cocoanut palms, areca-nut palms, jack-trees, orange-trees, and mangoes. He says that porcelain was imported into India from China. Aboolfeda of Damascus (A.D. 1273) mentions the abundance of pepper grown in Malabar, and the fine cotton manufactures of Coromandel. He divides Hindostan into 'Al Sind' the country of the Indus, and 'Al Hind' the country of the Ganges. (10) *Venice and Genoa.*—It has been mentioned above that one effect of the Arabian conquests was to exclude Europe almost entirely from intercourse with the East. This was the more vexatious, as by this time the people of Europe had acquired a taste for the commodities of the East and had thus become more desirous of obtaining them. Various cities of Italy, particularly Venice and Amalfi, had attained to prominence and wealth; and the use of luxuries had begun to spread not only through Italy, but also among the towns of France on the Mediterranean. During the progress of the Crusades (A.D. 1096–1291) various Italian States greatly extended their commercial operations in the East by means of privileges obtained in return for assistance given to the Crusaders. Two events happened prior to the termination of the Holy War, which by putting several provinces of the Greek empire in the hands of the Venetians and Genoese respectively enabled them to extend their commercial connection with the East. The first was the conquest of Constantinople in A.D. 1204, and the overthrow of the Byzantine empire by the Venetians and the leaders

The Kalachooryas or Kalabhooryas were a tribe coming originally from Bundelcund, due north of the Deccan. They were either Gonds or successors of Gonds in the same country. They were connected with the tribe of the Heihayas, who however are usually assigned to the districts further west in the valley of the Nerbudda. In their history they had a southward movement, and eventually reached Mysore. The Rattas belonged to the most eastern Canarese districts of the present Bombay Presidency. The name is the same as the Teloogoo Reddy of more modern times; but it was Sanscritized into Rashtracoota, by which designation the tribe is better known. These were all Dravidian tribes, with possibly a Kolarian intermixture.

86. The first capital of the Chalookyan kingdom of the Deccan was at Nagauvy near the Bheema river. Afterwards, as their power advanced through the Deccan, they established a capital at Calyaunapoora directly in the heart of the peninsula. From this last point they extended to the south and east. Calyaunapoora is now in the province of Beedar in the Nizam's Dominions. The country ruled by this kingdom when in its zenith was called Carnautacadesha. The greater number of the nations with which their early history was connected, for instance Nalas, Sendracas, Mautangas, Auloopas, Lautas, Maulavas, Goorjaras, &c., do not concern the present subject. They first appear however in connection with Southern India as the conquerors of the Cadambas, Congoos, Kalachooryas and Rattas above-mentioned in the country about the present Bellary and Anantapore districts and Mysore. They also engaged in war with the Tamul Pallavas, but at first with varying success. In one of their expeditions to the south they claim to have burnt the old city of Canjy. In a well-known inscription they are stated to have gained authority over the Cholas and Pandyas, and no doubt by the fourth and fifth centuries of the present era they were the most formidable power in Southern India. The Chalookyas divided into two branches in the beginning of the seventh century; one remaining in the Central Deccan, and the other proceeding to the Vengy country between the Kistna and Godavery rivers which they conquered. The capital of

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of the fourth Crusade. The Venetians in consequence obtained possession of part of the Peloponnesus, and several of the largest islands in the Archipelago, and thus secured to themselves the monopoly of the trade by the Euxine. Many Venetians then settled in Constantinople and soon engrossed the various branches of trade, particularly the silk trade, and that with India. The other event was the subversion of the dominion of the Latins (Baldwin, Count of Flanders and his successors) in Constantinople, and the establishment of the Palaelogi on the throne, which was effected in 1261 fifty-seven years after the Venetian conquest; chiefly owing to the powerful assistance of the Genoese, who were jealous of the commercial advantages enjoyed by Venice. In return for the assistance of the Genoese, Pera the chief suburb of Constantinople was bestowed upon them, and they thus became masters of the harbour. Their exemption from the usual duties on goods moreover gave them a decided superiority over their competitors in trade. The result of this was that Venetian merchants were compelled to carry on the Eastern trade through Alexandria. Finally Venice, with the permission of the Pope, concluded a treaty of commerce with the Mameluke Sultans of Egypt; and then for the first time a fair and open trade was established between Christians and Mahomedans. About 1425 A.D. Florence also obtained some small share in the Indian trade. Marino Sanuto, a Venetian noble, gives an account of the Indian trade as carried on by his countrymen, about the beginning of the fourteenth century. They were supplied with Eastern commodities in two different ways. Those of small bulk and high value, such as cloves, nutmegs, mace, gems, pearls, &c., were conveyed from the Persian Gulf up the Tigris to Bussorah, and thence to Baghdad, from which place they were carried to the Mediterranean ports. The more bulky goods, such as pepper, ginger, cinnamon, &c., were conveyed by the ancient route to the Red Sea, and thence across the desert and down the Nile to Alexandria. The goods received by the former route were of superior quality; but the supply was often scanty, and the mode of conveyance was attended with danger. The travels of Marco Polo now laid bare to Europeans new information as to the countries of the East. The importance of this may be judged from the fact that since the time of Cosmas Indicopleustes (the sixth century A.D.) direct intercourse of Europeans with India had entirely ceased. Marco Polo visited the south of India in A.D. 1292, and recorded his remarks. They are here given in detail. In the province of Malabar, an Arabic word signifying the passage or ferry, (the Coromandel Coast) there are five kings, brothers. Every one goes naked, except for a small piece of cloth. The women burn themselves with their husbands' dead bodies. Many people worship the cow. They rub their houses over with cow-dung, and always sit on the ground. The heat is very great and rain falls only in the three months of June, July, and August. The body of St. Thomas the Apostle is buried at a small town in this province (viz., St. Thomas' Mount near Madras). The next province is Mootfily (Telingana), ruled by a queen. In this country diamonds are got. The valleys in which they lie are inaccessible, so in order to get the diamonds pieces of meat are thrown down. These are seized by eagles which carry them up to the top. The men then frighten the eagles away and take the diamonds which have adhered to the flesh. Diamonds are also found among the droppings in the eagles' nests. In this kingdom are also produced the best buckrams. The next province is Lar (Goozerat), where live the 'Abraiaman' (Brahmins) and 'Choogy' (Jogies); the latter of whom lead an ascetic life, and never kill any animal. All the people of India chew a certain leaf called 'tembal' (the Persian name for 'betel'). Cail (Cauyal in Tinnevelly) is a great and noble city, where all ships touch that come from the west. In Coilum (Quilon) is found good ginger, abundance of pepper, and fine indigo. There are many curious animals, such as black lions, various coloured parrots, peacocks, &c. There is no corn grown, but only rice. The next country is Comary (Cape Comorin). Here are found monkeys, bears, lions, and leopards. To the west is the kingdom of Ely (Mount Delly). Pepper, ginger, and other spices are abundant. Melibar (Malabar) is a great kingdom. It contains many pirates. Much pepper, &c., is grown, and very fine buckrams are manufactured. Gozurat (Goozerat) is a great kingdom. It contains much pepper, ginger, indigo, and cotton. Beautiful mats are manufactured. The next kingdom is Tannah (near the modern Bombay). No pepper or spices grow here, but plenty of incense. From here are exported leather, buckram, and cotton, while gold, silver, copper, and other articles are imported. Cambaet (Cambay) has much trade in indigo, cotton and hides. Semenat (Somnaut) is a place of great trade; the people are cruel idolators. This concludes Marco Polo's account of India. A friar named Odorico di Pordenone travelled in India

the latter branch was Rajahmundry. The first ruler of the original dynasty after the separation was Satyaushraya, also called Poolikesy. He is said to have conquered Harshavardhana king of Canouj, at that time the most powerful ruler in North India. His period is placed about 585 A.D., a date which is confirmed by the accounts of the Chinese traveller Hwen Thsang. Some succeeding reigns were marked by severe contests with the Pallavas and other nations of the north. The Rattas then made head against the Chalookyas, and the king of the latter Jayasimha was obliged to take refuge with the Chowra dynasty of Goozerat. Teilapa a Chalookyan at about 800 A.D., defeated the Rattas, and re-established the Chalookyan power in the Deccan though with reduced boundaries. Frequent wars with the Cholas and Pallavas then again ensued. The most powerful of this second line was Vicrama. Under a ruler called Treilocyamulla, the Chalookya kingdom began again to decline. Bijjala a general of Kalachooryan descent and a Jeina by religion eventually expelled Treilocyamulla from his throne. Religious feuds between the new Jeina faith and the old Sheiva religion at that time occupied attention in the Deccan, and as a result of the dissensions Someshwara a Chalookyan recovered his dominions in 1182 A.D. The Hoysala Ballaulas however from the south, and the Jadows of Devagherry from the north, over-ran the country, and the Chalookyan Deccany kingdom disappeared then from history. The boar was the original emblem of the Deccany Chalookyas. A list of these rulers with some attempt at dates will be found in Vol. II, App. XXXIX. The first ruler of the Calinga Chalookyas was Coobja Vishnoovardhana, brother of Satyaushraya. His conquest of the east-coast Pallavas, the dynasty of which went by the name of Shaulancauyana was important not only on account of its political results, but also as marking a revival of Brahminism in the valley of the Kistna after a long prevalence of Booddhism. Four centuries afterwards in 1022 the Chalookyan Rajaraja married a daughter of Rajendra the Cholan, and from that date the Cholas established themselves in the Vengy province of the Calinga country. The Chalookyans were a Dravidian race, whose native habits and religion were during historical times

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between 1316 and 1330. He mentions Tannah, Surat, and Columbum (Quilon). He also notices the cultivation of pepper in Minibar (Malabar), on which coast he visited the towns of Flandrina and Cyngilin (probably Cranganore). He went on to Mobar (Coromandel), and mentions St. Thomas' tomb. Another friar, John de Marignolli, was at Columbum (Quilon) in 1348, and made a pilgrimage to St. Thomas' tomb. Nicolo Conti, a noble Venetian, travelled in the East for twenty-five years, between 1419 and 1444. He visited Cambay, Helley, Bizenegalia (Vijianugger), Pendifetania (Poothooputna), Cenderghiria (Chundragherry), Malepur (Mylapore) and Cahila (Cauyal); and mentions ginger, sandalwood, cinnamon, pearls and other precious stones. He then crossed over to Zeilam (Ceylon), where he mentions precious stones and cinnamon. He next visited Sciamuthera (Sumatra) which he also calls Taprobana and where he notices the pepper, camphor, and gold. He then returned to India, and sailed up the Ganges. After travelling in the Indian Archipelago, he returned to India, and visited Coloen (Quilon) in Melibaria (Malabar); and then Calicut, 'a noble emporium for all India, abounding in pepper, lac, ginger, cinnamon, mirabolan, and zedoary.' He then went on to Cambay, but returned to Calicut, from which port he finally sailed from India. Hieronimo di Santo Stefano, a Genoese, visited India about 1494–99. At Calicut he mentions pepper, ginger, and the cocoanut, and notices the red sandal-wood on the coast of Coromandel. At Cambay he describes the lac and indigo. He also visited Ceylon, and mentions its cinnamon and precious stones. A great revolution in eastern trade was caused by the establishment of the Turkish Government in Constantinople (A.D. 1453), which closed one mart of trade between Europe and the East; and gave a final blow to the commercial prosperity of Genoa, which was henceforward overshadowed by that of Venice. Just at the time however when Venice seemed secure of a continuance and even increase of opulence, two events happened which proved fatal to her destinies. These were the discovery of America, and that of the passage to the East Indies by the Cape of Good Hope; both effected by the Portuguese towards the end of the fifteenth century. The travels of Ludovico di Varthema are of high interest, since they were undertaken at the very time of the discovery of the Cape route to India, and give a detailed and accurate account of the commerce of the Indian seas as it existed immediately before it was completely revolutionized by that great event. Varthema was a Bolognese, and travelled in the East from A.D. 1503 to 1508. The first place in India he visited was Diuobandierroomi (that is to say Diu Bander-er-Roomi, Dew the port of the Turks), at which place he says there is an immense trade; and then he went on to Goa. He afterwards visited Combeia (Cambay), 'an excellent city abounding in grain and very good fruits.' He mentions much trade in various spices, cotton, and jewels. He then went to Cevul (Chaoul) where there was much grain and cotton. Then to Dabuli (Dabhol) and Goga (Goa), whence he went inland to the city of Deccan (Beejapore). He then visited in succession Bathacala (Carwar), the island of Anzediva (Anjidivy), Centacola (Ancola), Honore, Mangalore, and Cannanore. Here he found spices, such as pepper, ginger, mirabolan and cassia. He then visited Bisineger (Vijianugger) a place of great merchandize; and returning to Cannanore he proceeded by way of Tormapatani (Dharmapatam), Pandarini, and Capogatto to Calicut 'the place in which the greatest dignity of India is centred,' ruled by the Samory or Zamorin. Here he found merchants from all parts of the East and says that navigation is conducted only during eight months of the year, as from May to the middle of August the weather is very stormy. He describes the pepper and ginger of Calicut at length, and among the fruit trees of the country, mentions the ciccara (jack), amba or manga (mango), malapolanda (plantain) and tenga (cocoa-nut). He then went to Cacolon (Cauyancollam), where were many Christians of St. Thomas, Colon (Quilon), and Chayl (Cauyal) where he saw the pearl-fisheries. He visited a city called Cioromandel (Coromandel) 'near the place where St. Thomas' tomb is.' After a short visit to Ceylon, he returned to Paleachet (Poolicat) 'a place of immense traffic.' After a voyage in the Eastern Archipelago and to China, he returned to Negapatam, and went round to Quilon, Calicut, and Cannanore, where he entered the Portuguese service for a year and half and then went home in 1507. (11) *The early English.*—The first Englishman who visited India was Sighelmas, Bishop of Sherborne, who was sent thither, in the year 883, by King Alfred, to visit the famous Christian church named after St. Thomas. This Bishop, it is related, made his journey in comfort, and brought back with him 'many splendid exotic gems and spices, such as that country plentifully yielded.'

modified by Booddhist and Jeina councillors. They shared with the Pallavas the capacity for architecture, and the style called by their name is peculiar to themselves. As far as there can be any geographical distinction of architectural styles, the Chalookyan interposed between the areas of the North Indian and the so-called Dravidian of the south.

87. The Hoysala Ballaulas above-mentioned were originally subordinate to the Kalachooryas. They began to attain power in Mysore at the beginning of the eleventh century. Their capital was at Dwarasamoodra, the modern Halabeed. Their crest was a tiger[18]. The Jadows or Yadavas were a tribe allied to the Hoysala Ballaulas who established themselves at Devagherry, afterwards called by the Mahomedans Dowlatabad. Their crest was a golden kite[19].

88. THE SAME DOWN TO THE THIRTEENTH CENTURY.—The period from the eleventh to the thirteenth centuries in Southern India was one of material wealth, and of high civilization under the influence of the Brahminical religion. In the eleventh century gold was the most common precious metal in Southern India, silver however on the other hand being scarcely known. Strabo states that "the Indians unacquainted with mining and smelting are ignorant of their own wealth." But if that was so in his time, which is doubtful, it had ceased to be so. The Booddhist religion was by this time extinct. Jeinism which had followed it and made some progress southwards was in its decline. In the eleventh century a large number of important Shiva temples were built in the south, and in the thirteenth century a large number of important Vishnoo temples. The nation which most profited by Brahminical civilization thus established was that of the Cholas, and in the eleventh century there occurred a sudden development of the power of this people, which extended over the country of the Pandyas, South Travancore, and

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[18] SKETCH HISTORY OF THE HOYSALA BALLAULA RULERS.—This dynasty ruled over a great part of the modern Mysore from about the beginning of the eleventh till the beginning of the fourteenth century. They were probably feudatories of the Kalachooryas, the southern portion of whose territory they seized on the downfall of that kingdom. The Ballaulas were Yadavas by origin, and resided, during the time of their greatest power, at the old Yadava capital, Dwarasamoodra, the modern Halabeed. The founder of the family is by tradition called Sala or Hoysala, but possibly the name is mythical. Vinayauditya is the earliest authentic sovereign. Inscriptions of his are dated A.D. 1047 and 1076. He was a feudatory of the Western Chalookya king, Vicramaditya VI. He was succeeded by Yereyanga, and he by Ballaula I; an inscription of the latter is dated 1103. The next king was Vishnoovardhana, also called Bitty Deva, and by other names. Inscriptions of his are dated 1117 and 1137. He captured Talacaud, the capital of the Gangas of Congoo, and made many conquests. He was converted from the Jain religion to the worship of Vishnoo by Ramaunoojacharya. He was succeeded by Oodayauditya, about whom nothing is known. It is doubtful whether he ever actually reigned. The next king Narsimha I reigned from 1142 to 1191. He was succeeded by Ballaula II, who defeated the Kalachooryas, and fought against Pandya, Chola, and other nations. The next king Narsimha II was defeated by the Devagherry Yadavas, and lost much territory; an inscription of his is dated 1223. He was succeeded by Someshwara, an inscription of whose is dated 1252. The next king Narsimha III reigned at Dwarasamoodra; his inscriptions range from 1254 to 1286. He was succeeded by Ballaula III, the last of the dynasty, who reigned till 1310, when the Mahomedans conquered the kingdom and destroyed the capital. Ballaula continued nominally to rule till 1326-27, when a second Mahomedan invasion completed the destruction of the kingdom. However the representatives of the dynasty still claimed the title of king, for in 1337 a rebel Mahomedan viceroy fled to the Hoysala king at Tonnoor, near Seringapatam, for protection, and in 1344 the Hoysala prince Ballauladeva of Dwarasamoodra joined the Hindoo confederation which checked the Mahomedan advance southwards.

[19] SKETCH HISTORY OF THE YADAVAS OF DEVAGHERRY.—On the downfall of the Kalachooryas, the southern parts of their dominions fell into the hands of the Hoysala Ballaulas, while the northern parts were appropriated by the Yadavas of Devagherry, who were probably of the same original stock as the Hoysalas. Their banner bore the device of a golden Garooda. The first of the line was Singhana, who is mentioned as having obtained successes against the kings of the Carnatic (probably the Hoysala territory), Pandya, and Goorjara. He was succeeded by his son Malloogy, about whom nothing is known. He in turn was succeeded by Bhillama, who reigned from A.D. 1187 till 1191. During Bhillama's reign his son Jeitoogy was defeated by the Hoysala king Ballaula II in a battle at Lakkoondy in Dharwar district. He was succeeded by Jeitoogy, who reigned from 1191 till 1209. Vijayapoora or Beejapore was then the capital. Jeitoogy killed the king of Tricalinga (the Chola king or viceroy of Telingana), and seized his kingdom. He was succeeded by Singhana II, who reigned from 1209 till 1247. In this reign Devagherry is first mentioned as the capital. Singhana II conquered the Telingana, Kalachoorya, and Andhra kings. Thirty-eight inscriptions of his reign are extant, which prove that the kingdom had extended in size. Singhana's son Jeitoogy died in his lifetime, and Singhana was succeeded by his grandson Krishna, who reigned from 1247 till 1260. This king's viceroy in the southern provinces was the son of a general who is stated to have conquered the Rattas, the Cadambas of the Concan, the Pandyas of Gooty, and the Hoysalas, and to have set up pillars of victory near the Cauvery. The next king Mahadeva, Krishna's younger brother, usurped the kingdom. He died in 1271, and his son Amana was ousted by Ramchendra, son of Krishna, who reigned from 1271 till 1309. He was successful in a war against the Hoysalas. In A.D. 1294 he was attacked by the Mahomedans under Allah ood deen, nephew of Jellalooddeen of Delhi and was forced to make terms with the invaders. In 1306 Ramchendra having refused to pay tribute, Allah ood deen who had meanwhile succeeded to the throne of Delhi, sent an army against him under Malik Caufoor. Ramchendra was forced to submit, and was sent to Delhi, but was honourably treated, and finally restored to his kingdom. He was succeeded by his son Shuncara, who reigned from 1309 till 1312. This king refused to pay tribute, whereupon in 1312 Malik Caufoor marched against him, seized him, and put him to death. Malik Caufoor then ravaged the Deccan and took up his residence at Devagherry, but finally returned to Delhi. Ramchendra's son-in-law Haripaula took advantage of the absence of Malik Caufoor to stir up the Deccan, and succeeded in expelling a number of the Mahomedan garrisons, and regaining the former territories of Devagherry. In 1318 Moobaurak, then on the throne of Delhi, marched in person against Haripaula, who was captured, flayed alive, and decapitated, and in him the dynasty came to an end.

the north of Ceylon. At the beginning of that century the situations were thus. The Calinga Chalookyas held all the country along the eastern coast from the borders of Orissa as far south as the borders of the Pallava country. The Pallava kingdom was still a powerful one, possessing the coast from its junction with the Chalookyas down to the northern border of the Chola territories, which lay south of Canjy. The Pandyas remained within their original borders. The Congoo rulers who governed the old Chera country east of the Malayalam tracts along the coast were still independent ; but were exposed to the attacks of the Hoysala Ballaulas then rising into power and destined to subvert many of the surrounding monarchies. In A.D. 1022 by an intermarriage between the two dynasties, the Chola ruler Rajendra acquired possession of the whole of the Calinga-Chalookyan dominions. This was followed at the beginning of the reign of his successor, Rajendra Coolotoonga Chola by the complete subversion of the Pallavas and the annexation of their possessions. Tondeimandalam or the territory surrounding the present Madras was conquered by Athonday or Tondiman Chuckravurty, the son of Coolotoonga [20]. The Pandyans also were conquered and a short dynasty of Chola-Pandyan kings was established at Madura. Somewhat later the Hoysala Ballaulas

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[20] SKETCH ACCOUNT OF THE ANCIENT TONDEIMANDALAM COUNTRY, FORMING THE NEIGHBOURHOOD NOW SURROUNDING MADRAS.—*Its early history.*—Today, or with the addition of mandalam, a province, Tondeimandalam, of which Conjeeveram was the ancient capital, takes its designation from a shrub of the same name with which it abounds. It is called also Valanaud, the extensive district, whence the Chola princes took one of their titles, Valavan or Valanaudan. This name it probably received in latter times when by successive conquests its boundaries had been considerably extended. The country was inhabited originally by the Coorumbar, a pastoral tribe, sufficiently advanced towards civilization to have chiefs of their own, each of whom resided in a fortified place, with a district of greater or less extent under its jurisdiction, denominated கோட்டம், from கோட்டை a fort. Of these districts there were twenty-four. This race was to some extent exterminated, and a tribe of agriculturists, the Vellaular, were established in the country by Athonday or Tondiman Chuckravurty. The Vellaular of Tondeimandalam were at their first settlement divided into three tribes. The first were the Condeicutty Vellaular, so named from tying the hair in a tuft on the crown of the head instead of leaving a small lock, coodoomy, behind as worn in the Tamul country, or before as worn in Malayalam. These Athonday Chuckravurty found in the country, scattered over it in distant settlements where the land had been sufficiently cleared and reclaimed to admit of agricultural pursuits. The second, or Chola Vellaular, accompanied Athonday into Tondeimandalam ; but tradition says that few remained, the others being dissatisfied with the difficulty experienced in clearing the ground and the small profits resulting from their labors. The third were the Tooloova Vellaular, who had emigrated from Tooloovanaud, on the western coast. These constituted by far the greater body of the settlers, and were induced to remain and bring the whole province into cultivation by the peculiar privileges (caunimaunyam, merays, &c.) politically conferred upon them by Athonday Chuckravurty. Each of these tribes has till recently held mirass in Tondeimandalam; the Tooloova Vellaular in a greater, the Condeicutty and Chola, each respectively, in a less proportion. Until the termination of the Tamul government, none but Vellaular possessed, or were qualified to possess landed property in the province. (2) *Auveiyaur's statement of the early boundaries.*—The following memorial verse by Auveiyaur states the boundaries of Tondeimandalam. மேற்குப்பவழமலைவேங்கடநேர்வடக்காம்ஆர்க்குமுவரியணிகிழக்குச்-சீர்க்குளுயர்தெற்குப்பினைகைதிகழிருபதின்காதநற்றொண்டைநாட்டெல்லைநாடு. " To the west the Pavazha mountain. Vengadam is direct to the north. The line of the resounding sea to the east. High in renown the Pinaugay to the south. Twenty full cauthams. Know these to be the boundaries of the excellent Tonday country." The Pavazhamullay, or coral mountains, are the line of the Eastern Ghauts. Vengadam is one of the names of the sacred hill of Tripatty. Pinaugay (Pinaukiny) is the Sanscrit name of two rivers, which both rise in the mountains of Nundidroog; the northern passing by Penoocondah and through the district of Nellore, the southern disemboguing near Cuddalore. The latter is here meant. Measuring a straight line from the extremity of the Poolicat lake, where Shreeharicote the most northern of the Tondeimandala villages is bounded by the Swarnamookhy river to the mouth of the Pinaugay, the distance will be found to be almost exactly twenty cautham, or reckoning the cautham at eight miles, one-hundred and sixty miles. The boundaries here stated embrace only the country below the ghauts, forming a considerable portion of the extent called by the Mahomedans, and after them by Europeans, the Carnatic Payeenghaut. (3) *Traditional stanza showing the extended boundaries.*—சேயாறுதெற்குத்திருவேங்கடம்வடக்குமாயாகடல்கிழக்குமானனையீர்-மேயஇடபகிரிமேற்கேயிதுதொண்டைநாட்டினிடந்தனைச்சொன்னாரிசைந்து. "The Cheyaur to the south. The sacred Vengadam to the north. The everlasting sea to the east, O ye who resemble fawns! The desirable mountains of the bull to the west. That this is the situation of the Tonday country all speak in agreement." As above mentioned, these memorial verses and other kinds of Tamul didactic poetry are often addressed to women. Epithets used are soft-footed, crimson-footed, fawn-eyed, taper-handed, ye whose twining locks entangle the soul, &c. There are two rivers called Cheyaur. One taking its rise below the ghauts, joins the Palaur at Tirmooccoodal, a little to the east of Conjeeveram; the other, the Yenauttcheyaur, the Cheyaur of Yenaud or Yezhanaud, the ancient name of the country to the south and west of upper Tonday, is the river here meant and is the same as the southern Pinaukiny or Pennay. The mountains of the bull, Yidabagiry, are the range of hills on the southern extremity of which stands the fortress of Nundidroog. The boundaries here indicated extend therefore much farther to the westward than those stated in the preceding verse. The whole province indeed may be naturally divided into upper and lower Tonday. The latter is as already stated; the former constitutes the north-eastern districts of the country now under the dominion of the Rajah of Mysore, and comprehending part of the Carnatic Balaghaut. (4) *Stanza from the Tiroocazhicoondra Pooranam illustrating the history.*—வண்டரமலர்த்தேன்மாந்தபெண்ணையின் வடபால்வேழங் கண்டரவங்கண்டார்க்குங் காளத்திவரையின் றென்பாற்றண்டரப்புணரிமேல்பாற் பவழமா சைலக்கீழ்பாற் றொண்டீரத் திருநாடென்னும் தன் வளம் தொகுத்துச்சொல்வாம். முக்கணன்கணநாதர்க்குண்முதன்மைத்தொண்டீரனுண்டுமிக்க-தொண்டீர்நாடாய்த்தண்டகவேந்தன்றுங்கித்தக்கதண்டகநன்னாடாய்த்தபனன்மாகுலத்து சோழன்றொக்கதாரத்தொண்டைமான்காத்தாயதுதொண்டைநாடே. " To the northward of the Pennay where the bees sip the honey of the moist flowers. To the southward of the Caulatty mountain where the lion seeing the elephant roars. To the westward of the cool shore-possessing sea. To the eastward of the great coral mountains. We shall thus sum up and describe the prosperity of the divine Tondeeram country. Tondeeran having exercised sovereignty among the demon-leaders under the three-eyed deity, it became the superior Tondeer country. The Dandaca king having supported it, it accordingly became the excellent Dandaca country. Cholan of the great race of the sun, the Tondiman of woven garlands, having protected it, it became the Tonday country." This shows three dynasties; that of Tondeeran, Dandaca, and Athonday. When the Aryans first knew the country it was called the Dandaca desert.

of Mysore overthrew the Congoo kings of South Mysore and Coimbatore and seized their territories. A list of the Hoysala Ballaulas with dates is given in Vol. II, App. XXXIX. Vishnoovardhana, a Ballaula king, became a convert to the Vishnoo creed through the influence of the teacher Ramaunoojacharya to whom he gave a refuge when escaping from the Chola king. At the beginning of the thirteenth century the power of the Ballaulas of Mysore was increased by the conquest of the Cadambas and Kalachooryas to their immediate north, and by the downfall of the Deccany Chalookyan dynasty. The Yadavas of Devagherry seized the northern part of the Deccany Chalookyan kingdom, but their history hardly pertains to the present remarks. Later again however the Cholas lost their northern possessions, which were seized by the Caucateeyas or Ganapaties of Warangal. The earliest authentic king of the Ganapaty dynasty is Prolarajah who built the city of Warangal 86 miles north-east of the modern Hyderabad. Their original capital however was Hanoomaconda in the same neighbourhood. One of the most remarkable rulers of this line was the queen Roodramma. Marco Polo, the Venetian traveller who visited her dominions at the close of her reign, introduced her to European history. In 1295 A.D. Roodramma abdicated in favour of her daughter's son Prataupa

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(5) *Stanza by Auveiyaur showing the civilization of the country.*—வேழமுடைத்துமலைநாடுமேதக்கசோழவளநாடுசோறுடைத்துப்-பூழியர்கோன்றென்னாடுமுத்துடைத்துத்தெண்ணீர்வயற்றொண்டைநன்னாடுசான்றோருடைத்து. "The hilly country possesses elephants. The great and prosperous Chola country possesses rice. The Poozhiyar king's southern country possesses pearls. The excellent Tonday country with clear-watered fields possesses learned men." The hilly country means Malayalam and Coimbatore. Cholavalanaud is Tanjore and the country immediately to the north of the Coleroon. The southern country means Madura and its dependencies. Poozhiyan was the Madura king. (6) *Traditional stanza showing the political divisions.*—கோட்டமோரிருபானான்குகூறுநாடெழுபத்தொன்பான்கோட்டெழிலாயிரத்துத்தொளாயிரநத்தமாகுந்நாட்டெழுகோத்திரங்கள்சகத்திரம்பன்னிரண்டாநாட்டில்வேளாளர்தம்மைநவின்றிடவடங்காலக்கம. "Twenty-four cottams, seventy-nine appointed nauds, one thousand nine hundred townships beautified by palm leaves. The families descending from ancestral times are twelve thousand. To declare the number of the Vellaular in this country, figures will not suffice." The traditions of these political divisions are still ascertainable at Conjeeveram. The number of nauds in each cottam varied considerably, some consisting of one naud only, and some containing as many as five. The actual extent of the district appertaining to each however did not depend on the number of these sub-divisions. The division by cottams was adopted, as already stated, from the nomadic race they had expelled, by the people of Cholamundalam; and the forts must have been long after maintained by them, for the sites of many, marked by high mounds and deep hollows, are still pointed out. The sub-division of nauds was introduced by the agricultural colonists, and the office of நாட்டான், or head of the naud, which still remains and possesses some authority, as to question of caste especially, was conferred on the principal Vellaulan, whose descendants still hold it. The nauttaun held originally the whole civil authority of the naud. He still claims precedence in all assemblies composed of more than one caste. The assembly of the nauttaur of a cottam with the chief proprietors of their respective nauds formed what was called the Mahanaud or council, of which the tradition now only remains. The consideration of agricultural improvements in the cottam, of the means of extending irrigation, &c., seem to have been principally the purposes for which it met. Whether its members possessed administrative powers cannot be determined. What is now called the Mahanaud in the neighbourhood of Madras is merely the assembly of the several tribes belonging to the right-hand faction, under the direction of the Nauttoodesham, and its deliberations are confined entirely to questions regarding caste. The institution however under the title of நாட்டுக்கூட்டம், the assembly of the country, still exists in Travancore. (7) *Present identification of the political divisions.*—The positions of most of these cottams are easily ascertained, as the villages which gave name to them still exist, and the outline of the forts themselves may be traced. Some of the principal villages however both of the cottams and nauds have either become by lapse of time entirely extinct, or have departed from their former consequence. Thus the site of the Eyil Cottam is marked only by a pagoda, which, tradition says, belonged to the place dedicated to Eyil Pillaiyar; and of the three nauds of this cottam, one, Tandagam, has changed its name to Poollairy, the nattam of which is included within the general boundary Conjeeveram, and another, Conairinaud, has become a cooppam or hamlet dependent on this town. Twenty of the twenty-four cottams belonged to lower Tonday, and were included in the extent between the range of the ghauts and the sea. Of the four remaining cottams, the extent is unknown and all traces of their dependent nauds are now lost. Cadigay, it is probable, as it is stated to have lain to the north of Arcot, comprehended the whole or the greater part of the Chittoor pollIems. The site of the second, Shandirigay, is now occupied by the dismantled fortress of Chundragherry, the last seat of the Vijianugger dynasty. The third was near the sacred hill of Tripatty, the old name of which is Vengadam. The last, the name of which, Pattracoondram, signifies protected by the hill, was on or near the hills of Nundidroog, probably in the situation occupied by the modern fortress of that name. (8) *Extent of the whole.*—The whole superficies of Tondeimandalam, as originally occupied by the people of Cholamundalam, is calculated at 18,302 square miles. Of this extent the division of the country between the range of the Ghaut mountains and the sea, lower Tonday, contained 14,028 square miles, and the division to the west of the ghauts, upper Tonday, contained 4,274 square miles. (8) *Present ethnology.*—The lands of upper Tonday are now in the possession of the agricultural tribes of the Canarese nation, intermixed with a few Teloogoo castes; these having superseded the race and language of the Tamuls. Some Tamul tribes still remain there. The Pariahs hold their original mirassy offices, and the Pullies and the Keikkilas or weavers retain the Tamul language. The principal pagodas also, the construction of which is universally ascribed to the Chola princes, are covered by inscriptions in this tongue and the officiating Brahmins are many of them of this race. This country having passed successively from the native princes to the Mahomedans of Beejapore and to the Mahrattas and having been the scene of the earliest usurpation of Hyder Ally, the best features of ancient polity are now obliterated. The Vellaular have entirely disappeared and landed mirass has become extinct. Enough remains however of former institutions to prove that they were the same as those of the other countries, swayed originally by the sceptre of the Tamul princes; and documents show that not long ago the Tamul race was still in possession of the property of the lands, and exercised it in full dominion. The northern part of lower Tonday passed from the dominion of its native rulers at least as early as A.D. 1000, when Immady Narsinga Royel, who built the original fort of Chundragherry, reigned over a considerable portion of Southern India at Narrainavaram near Nagary, and must consequently have subverted the authority of the Chola princes in this part of the country; of which however this dynasty recovered possession, as they were not finally driven from their northern dominions until upwards of 150 years later by Ganapaty Gujapaty, the fourth prince of the Caucateeya family, established at Hanoomaconda or Warangal. This extent is now inhabited entirely by Rajavaur, Velamas, Reddies, and other Teloogoo tribes, and landed mirass is either extinct in it or vested in the zemindars, who hold the

Roodra, virtually the last of his line. The Ganapaties of Warangal have already been mentioned in the foot-note on Calinga. The final history of the Cholas has already been indicated in a note. The Cholas in the end obtained a temporary sovereignty, checked by the power of the Hoysala Ballaulas above the ghauts in Mysore. All these powers were eclipsed by the inroad of the Mahomedan arms.

89. THE MAHOMEDAN CONQUEST.—The conquest of India by the Arab dynasty of Ghuznee in Afghanistaun forms the era at which commences a regular series of Indian history supported by written documents. The bold and rough population who inhabit the mountains of Afghanistaun enabled Mahmood the Great to unite all the west of India, with Khorassan and great part of Tartary, into one empire. His dynasty was subverted by that of Ghory, another Afghan kingdom, and this was followed by a long series of emperors similarly descended, but ruling at Delhi. In 1398 Delhi was taken by the Tartar Tamerlane. A century afterwards again Baber founded at Delhi the Moghul or Mongolian empire, which extended under Acbar and Aurungzeeb, displayed a power and splendour scarcely equalled by any monarchy even of Asia. Along with Afghanistaun, it included the whole of Hindostan, and nominally the whole of Southern India [21]. The

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greater part of the country. In the southern part of lower Tonday, the lands for the most part still continue in the possession of the original settlers, the Vellaular. On them the Shaunaur, Pullies and other Tamul tribes, Brahmins, and Reddies and Balijes of Teloogoo origin have made great encroachments and now hold a considerable proportion of the whole mirass. Among all however the institutions of the ancient Tamul government, notwithstanding the innovations of recent times, remain in a great degree in force.

[21] SKETCH HISTORY OF THE MAHOMEDAN IMPERIAL DYNASTIES OF INDIA.—*First Mahomedan invasions of India.*—The first Mahomedan invasion of India was in A.D. 711 when an expedition from Bussorah under the command of Cassim conquered Scinde. About forty years later however the Mahomedan invaders were expelled by a Rajpoot tribe. The Mahomedan kingdom of Ghuznee was established in Afghanistaun in A.D. 961, and in 977 the second king of the line, Sebaktigin, defeated the Hindoos at Lumghan, near Peshawar, and occupied the territory west of the Indus, but did not extend his dominion in India. He was succeeded in 997 by his son Mahmood, who, on different occasions, invaded India no less than thirteen times. The first invasion was in 1001, and the last important one in 1024 when Mahmood penetrated to Goozerat and sacked the famous temple of Somnaut. Mahmood however established no fixed empire in India. About the commencement of the twelfth century A.D., Musaood III, one of Mahmood's successors, made Lahore his capital, and consolidated his power in India. The next Mahomedan invader of India was Mahomed Ghory, who in 1193 defeated the Hindoos in a great battle at Tiroory on the Sarsooty river and established the Mahomedan Government at Delhi on a firm footing. (2) *Slave Kings of Delhi.*—Mahomed Ghory was assassinated in 1205, and in 1206 Cootb ood deen was crowned at Lahore as first Mahomedan king in India. He was originally a slave, hence this dynasty is called that of the slave kings. He was succeeded in 1210 by Araum, who was deposed soon after by Shums ood deen Altmish. This king extended his kingdom considerably, so that at his death in 1235, the Mahomedan sovereignty was established over the whole of Northern India from the Indus to the Ganges. The slave dynasty continued to reign till 1288, when the last king Keicobaud was murdered, and Jellal ood deen Khiljee ascended the throne. (3) *Khiljee Dynasty of Delhi.*—This dynasty reigned from 1288 to 1321. In Jellal ood deen's reign the Mahomedans made their first expedition into the Deccan under Allah ood deen, nephew of the king. In this expedition Allah ood deen defeated the Hindoos at Ellichpore, the capital of Berar, and then invested Devagherry, the chief fortress of the Yadavas, but finally retired on payment of a large ransom. In 1295, soon after his return, Allah ood deen murdered Jellal ood deen and ascended the throne. In 1298 the Moghuls invaded India and advanced as far as Delhi, but were defeated. They subsequently made other inroads during this reign, but without success. In 1306 an expedition was sent to the Deccan against Devagherry under command of Malik Caufoor, but nothing material was achieved. Subsequently Malik Caufoor made other inroads into the south of India, in 1309 when Warangal was captured, in 1310 when Dwarasamoodra was sacked, and in 1312 when he overran the Carnatic. Allah ood deen died in 1316 and was succeeded by Moobarak. This king was murdered in 1321 and succeeded by Malik Khoosroo, the last of the dynasty, who was shortly defeated and killed, and Ghazee Beg Toghlak was elected king. (4) *Dynasty of Toghlak.*—This dynasty reigned from 1321 till 1412. Ghazee Beg Toghlak on ascending the throne assumed the title of Ghiyaus ood deen. He renewed operations against the Deccan, and Beedar and Warangal were captured, Mahomedan officers being appointed to govern the country. He was succeeded in 1325 by Mahomed Toghlak. The first occurrence in this king's reign was a great irruption of Moghuls, who advanced as far as Delhi, but retired on payment of ransom. An expedition was sent against China in 1337, but failed and was almost totally destroyed. The king now determined to make Devagherry, near Aurungabad, his capital, changing its name to Dowlatabad. The people of Delhi were consequently ordered to evacuate that city, and proceed to the new capital, with the result that thousands died on the way. This removal was however only temporary, and the king soon returned to Delhi. In 1344 the Hindoos rose against the Mahomedans in Warangal and drove them out. Continual rebellions now took place in various parts of the country, and in 1347 Allah ood deen Hassan founded the Bahminy kingdom in the Deccan. Mahomed Toghlak was succeeded in 1351 by Firoze Toghlak, whose reign is rendered memorable by the large canals and other public works constructed by him. He was succeeded in 1388 by Ghiyaus ood deen, who was put to death after a reign of only five months. Several other kings followed in rapid succession, and finally Mahmood ascended the throne in 1394. In his reign occurred the invasion of Teimoor or Tamerlane in 1398, which virtually put an end to the Toghlak dynasty. Mahmood however lived till 1412. (5) *Invasion of Teimoor, and Syed Dynasty of Delhi.*—Teimoor crossed the Indus in September 1398. He encountered little resistance and after pillaging the Punjaub and Mooltaun he advanced towards Delhi. Mahmood marched out and met him at Firozabad, but was defeated in January 1399, and Teimoor thereon proclaimed himself Emperor of India. He proceeded to impose a contribution upon the inhabitants of Delhi which brought on a collision with the Moghul troops, and finally a general massacre and pillage. Teimoor soon returned to his own country leaving Syed Khizr Khan, the viceroy of Lahore, as his deputy. On the death of Mahmood Toghlak in 1412, Dowlat Khan Lody assumed the crown, but was defeated and imprisoned by Khizr Khan, who ascended the throne as the first king of the Syed dynasty. Khizr Khan was succeeded in 1421 by Syed Moobarak, who in turn was succeeded by two other Syeds, the dynasty terminating in 1478. (6) *Afghan Dynasty of Lody.*—This dynasty lasted from 1478 to 1526, the first king being Bahlole Lody, who had practically been at the head of affairs since 1450. He was succeeded in 1458 by Nizam Khan, who took the name of Secunder Lody. After a long and prosperous reign he died in 1517, and was succeeded by his son Ibrahim. In 1526 Baber invaded India, and at the battle of Paniput in April 1526 Ibrahim Lody was defeated and killed, and with him ended the dynasty. (7) *The Moghul Empire, Baber and Hoomayoon.*—The Moghul empire was founded in 1526 by Baber, lineal descendant of Teimoor. He became king of Ferghauna at the age of twelve, but being driven out of his kingdom in 1504 he took possession of Cabool. In 1519 and again in 1520 he advanced into India, but on each occasion was forced to retire. In 1524 he advanced as far as Lahore, but was again forced to retreat. Finally in 1525 he

Mahomedan races first made their influence felt in Southern India and Ceylon many centuries before this period by the establishment of trading emporia on the coasts. On the Malabar coast, Calicut, and in Ceylon, Manaar and Mantotte or Mauntay, were the chief entrepôts of traffic for the Moorish merchants, who received

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crossed the Indus, defeated Ibrahim Lody at the battle of Paniput in April 1526, and was proclaimed Emperor of India at Delhi. Soon after this he was attacked by a Rajpoot league, which he defeated at the battle of Sikry. Baber died at Agra on 26th December 1530, having in less than four years founded a great empire. He was succeeded by his son Hoomayoon, whose first campaign was directed against the Hindoos of Bundelcund, who submitted to him. Goozerat was invaded in 1534, and soon subdued. Hoomayoon next proceeded in 1537 against Sher Khan, who had rebelled in Bengal. In the campaign which followed, Hoomayoon was outgeneralled and defeated and was forced to flee from the kingdom, finally taking refuge at Candahar in 1543. (8) *Afghan Dynasty of Soor.*—After Hoomayoon's flight, his successful rival Sher Shah Soor succeeded him, and established an Afghan dynasty. His chief operations were directed against Rajpootana, in the course of which he was killed at the siege of a town in 1545. He was succeeded by his second son Jalaul Khan, who was crowned under the title of Soolim Shah. He reigned till 1553, and was succeeded by his wife's brother Moobariz Khan, who murdered Soolim's son Firoze, and ascended the throne under the title of Mahomed Shah Soor Adil. He immediately proceeded to confer the highest dignities of the State upon persons of low birth and made Hemoo, originally a Hindoo shopkeeper, his chief minister, and thus offended the nobility. Ibrahim Khan Soor, the king's brother-in-law, now rebelled with some success, and was soon followed by Ahmed Khan, nephew of the late Sher Shah. Mahomed Shah Adil was finally killed in battle, and succeeded by Secunder Shah, who however was shortly defeated by Hoomayoon, who thus recovered his kingdom in 1555. Within a few months Hoomayoon met his death by an accident and was succeeded by his son Acbar in 1556. (9) *Acbar.*—Acbar was thirteen years old when he ascended the throne. His first step was to appoint Beiraum Khan his prime minister. He then took the field against Secunder Shah and defeated him. Hemoo, Mahomed Soor Adil's Hindoo minister, then appeared on the scene with a large army of Pataums and captured Agra and Delhi. Acbar advanced to meet him and a battle was fought at Paniput in November 1556, in which Hemoo was defeated and killed. Subsequently Secunder Shah was again defeated, and by July 1557 Acbar found himself the undisputed ruler of the whole of North-western India. Beiraum Khan's overbearing conduct estranged Acbar, who consequently decided to carry on the government himself. Beiraum Khan at first acquiesced in this, but afterwards raised troops which were defeated, and finally in 1560 he set off for Mecca, having first made his peace with the emperor, but while on the journey was murdered in 1561. In this year the emperor married a Hindoo princess of Sambhal, an act which shows what turn his policy was taking. In 1564 Asaf Khan Uzbek, governor of Malwah, rebelled against Acbar, and the force sent against him met with very little success at first, but the rebels were finally defeated in 1566 by the emperor in person. In 1567 Acbar besieged Chittoor, the principal town of Rajpootana, the garrison of which being reduced to extremities, performed the rite of Johur (i.e., put their women and children to death), and sword in hand perished to a man. In 1572 Goozerat was invaded and subdued, but rebelled again in 1573. Acbar immediately proceeded by forced marches to Ahmedabad where he defeated the insurgents. He then returned to Bengal, where Davood Khan had rebelled, the result of the operations being that Bengal and Behar were annexed to the empire in 1575. In 1579 Acbar's brother Hakeem Mirza invaded the Punjaub, and defeated the Governor Rajah Maun Sing, but was in turn defeated by Acbar, who pursued him into Cabool, but finally forgave him. In 1581 there was an insurrection in Goozerat in favour of the king Moozuffer Shah, but this was suppressed after three years' desultory warfare. In 1586 a force was despatched against the Afghans of Swat, who drew the Moghuls on until they were entangled in the mountains and then defeated them with great slaughter. In 1587 Cashmeer was annexed. In the same year died Rajah Toder Mull, Acbar's great finance minister. In 1592 Scinde was subdued. Acbar's empire now included Afghanistaun on the west, Cashmeer and the Punjaub on the north, and the whole of the North-Western Provinces; on the east Oudh and Bengal, with Orissa and Cuttack, while the southern frontier was formed by Malwah, Goozerat, and Scinde; many of the Rajpoot princes also were connected with the empire by marriage or otherwise. Acbar now turned his attention towards the Deccan, and in 1595 his son Prince Mooraud besieged Ahmednugger, and finally obtained the cession of Berar. In 1596 however the chiefs of Ahmednugger and Beejapore marched to expel the Moghuls from that province, and a bloody but indecisive battle ensued at Soopa on the banks of the Godavery. Prince Mooraud died in 1599 and Acbar then proceeded in person to the Deccan, and in 1600 besieged and captured Ahmednugger, but the country was not actually annexed for several years. Asseergurh was next captured, and Candeish annexed to the empire. Acbar was now forced to return to Agra to oppose the rebellion of his eldest son Selim. Acbar treated him with great leniency and succeeded in preventing an open collision, but this, together with the death of Prince Danial which occurred about the same time, proved extremely injurious to the emperor's health which declined rapidly, and he finally died on 13th October 1605 after a reign of more than fifty-one years. Among the many reforms instituted by Acbar, the one most worthy of mention is that of the land-revenue system. This measure was devised in conjunction with Rajah Toder Mull, its general principles being as follows. The land was measured by an imperial standard, and soils of various qualities were divided into three classes. The average value of the produce was then calculated upon an average of the prices for nineteen years. The Government share of the produce was fixed at one-third, and all petty vexatious taxes were abolished. At first settlements were made every year, but subsequently every ten years. (10) *Jehaungeer.*—Acbar was succeeded by his eldest son Selim, who ascended the throne under the title of Jehaungeer, or 'Conqueror of the World.' Soon after his accession his eldest son Khoosroo revolted, but was defeated and captured. In 1610 Malik Ambar took up and for some time maintained an independent position in the Deccan. In 1611 the emperor married the celebrated Noor Jehaun. In 1612 troops were despatched to the Deccan but met with no success. In 1613 the emperor granted permission to the English to trade in his dominions, and factories were established at Surat, Cambay, Gogo, and Ahmedabad. In 1615 Sir Thomas Roe arrived at Jehaungeer's court as ambassador from King James I. In 1616 Malik Amber was defeated, but regained his power in 1620, being again subdued by Prince Shah Jehaun. This prince soon after rebelled against his father and obtained possession of Bengal and Behar, but being defeated retired to the Deccan, and finally submitted. Soon after this Mohubut Khan, one of the chief nobles of the empire, apprehensive of danger to himself from the empress' jealousy, seized Jehaungeer, and kept him prisoner for some time, but he finally escaped. Jehaungeer died in 1627. (11) *Shah Jehaun.*—Jehaungeer was succeeded by his son Shah Jehaun. In 1628 Khan Jehaun Lody, viceroy of the Deccan, rebelled and defeated the Moghul troops sent against him, but was killed in 1630, and the Moghul forces then advanced on Dowlatabad; and having occupied Dharwar, proceeded to besiege Beejapore in 1632, but without success. In 1633 Dowlatabad was taken, and the last king of the Nizam Shahy Dynasty sent as a State prisoner to Gwalior. Beejapore was again besieged in 1635, but peace was concluded the next year. In 1644 Balkh was conquered and handed over to Nuzzer Mahomed. In 1648 Candahar was taken by the Persians, and was never reconquered by the Moghuls. Meanwhile Sivajee, the Mahratta, began to come into prominence. In 1646 he obtained possession of the strong hill fort of Torna, and in 1656 made Prataubgurh the capital of his possessions. In 1656 the emperor's son Aurungzeeb, now viceroy of the Deccan, declared war against Beejapore and captured Beedar, but retreated on hearing news of his father the emperor's dangerous illness. Shah Jehaun's four sons, Darah, Shoojah, Mooraud, and Aurungzeeb now commenced to intrigue for the succession to the empire, and finally Aurungzeeb and Mooraud having defeated the other two brothers, marched on Agra, and virtually deposed Shah Jehaun, who however lived till the end of 1666. (12) *Aurungzeeb.*—Shah Jehaun having been deposed, Aurungzeeb imprisoned his brother Mooraud, and usurped the government in 1659. His first measures were directed against Sivajee, who had defeated a Beejapore army sent against him, and assumed the title of Rajah. The Moghul forces obtained some successes, and finally Sivajee submitted and joined the Moghuls, being confirmed by the emperor in all his acquisitions. In 1666 Sivajee offended by Aurungzeeb's treatment of him, again declared his independence, and obtaining some successes, established the Mahratta demand for chowt, which afterwards attained such proportions. The emperor now sent an army against him, which was defeated

from agents at various ports the produce of different parts of the East. There was even a close connection between the Maldives and the Mahomedan settlements on the Malabar coast, notably Cannanore, resulting in a feudatory subjection of the islands to that state. To this day the Maldives are ruled by a sultan, though

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in 1672. Aurungzeeb next had to turn his attention to a rebellion of the Afghans on the borders of Cabool, who continued to occupy him for some time. Disturbances also arose at Delhi, which resulted in a massacre of Hindoos and the re-imposition of the Jizia or capitation tax. In 1677 several Rajpoot princes rebelled, and a war of a violent and cruel character ensued. Sivajee obtained several successes against Beejapore, whereupon the Moghuls attacked him, but without effect. War was also made on Beejapore and the city itself besieged, but it was not taken. Sivajee died in 1680. After his death the Moghuls continued their operations against his successor Sumbhajee, without material results. Beejapore was next attacked and captured in 1686, and the king Secunder, the last of the Adil Shahy Dynasty, was made prisoner. In 1687 Aurungzeeb declared war on Golcondah, captured the city, and annexed the kingdom; thus putting an end to the Cootbshahy Dynasty. In 1689 Sumbhajee was captured and put to death, and hostilities with the Mahrattas were renewed. Jinjee was besieged in 1691, but not captured till 1698. In 1699 Sattaura was captured, but no lasting impression could be made on the wandering bands of Mahratta horsemen, who between 1702 and 1705 continually plundered Goozerat, Candeish, and Malwah. About this time the Rajpoots and Jauts also rebelled. Aurungzeeb died at Ahmednugger in 1707, having provided in his will for the division of the kingdom among his three sons. (13) *Bahaudur Shah.*—The provisions of Aurungzeeb's will led immediately to civil war among his sons; in which Azeem and Cambuksh lost their lives, and Moazzim ascended the throne under the title of Bahaudur Shah. In 1709 the Sikhs rebelled and were not subdued till 1711. In 1712 the emperor died in the fifth year of his reign. (14) *Jehander Shah.*—Bahaudur Shah's death was followed by a contest between his four sons, but finally Mooz ood deen ascended the throne under the title of Jehander Shah. His first act was to murder all the male members of the royal family, and to promote to high positions the relatives of his mistress Laul Koor. Soon after this the emperor's son Ferokshere rebelled, deposed his father, and ascended the throne in 1713. (15) *Ferokshere.*—The new emperor again in his turn put to death his father, and the vizier Zoolfacar Khan. The two brother Syeds, Houssain Ally and Abdoollah, were appointed respectively commander of the forces and vizier. Soon after this, the emperor having been cured of a disease by Mr. Hamilton, an English surgeon, in return gave permission to the English to buy some villages near Calcutta, and granted them also various trading privileges. In 1719 the two brothers Houssain Ally and Abdoollah marched on Delhi, threatened the emperor, and finally deposed and put him to death, placing Prince Rafee ood darajaut on the throne in his stead. This prince however died in June 1720, and was succeeded by his brother Rafee ood dowlah, who also died soon after, and Rowshan Akhtar, a grandson of Bahaudur Shah, ascended the throne under the title of Mahomed Shah. (16) *Mahomed Shah.*—The government of the empire had by this time completely fallen into the hands of the brother Syeds. Nizam ool moolk, who had been appointed governor of Malwah, rebelled and marched into the Deccan, where he defeated two imperial armies sent against him. Houssain Ally then marched for the Deccan, taking the emperor with him, but was assassinated. His brother Abdoollah, on hearing of his death, placed Rafee ool kudr, a grandson of Bahaudur Shah, on the throne. In the battle that ensued between the rival emperors, Mahomed Shah was victorious, and the power of the Syeds was brought to an end. Nizam ool moolk was then appointed vizier, but found the emperor so adverse to him that he resigned his office, and returned to the Deccan in 1723. He had no sooner departed than a plot was formed against him by the emperor, and Moobariz Khan, governor of Hyderabad and the Carnatic, was directed to attack him. In the battle that ensued Moobariz Khan was defeated and killed, and Nizam ool moolk so obtained possession of the Deccan. He next endeavoured to sow dissension among the Mahrattas, whose power had increased considerably, but he was unsuccessful, and finally was forced to make arrangement with the Peshwa, Bajee Row, by which he undertook not to oppose the Mahratta designs on Northern India. Bajee Row then obtained possession of Malwah, and the Mahrattas extended their predatory expeditions as far as Agra. Finally Bajee Row advanced as far as Delhi, eluding the imperial forces, but retired on payment of a sum of money. The emperor then commenced negotiations with Nizam ool moolk, who in 1737 returned to Delhi, and led an army against the Mahrattas. Bajee Row succeeded in surrounding the imperial camp, and Nizam ool moolk was forced to retreat, and finally entered into the Convention of Sironchah (11th February 1738), by which Malwah and other territory was ceded to the Mahrattas, and fifty lakhs paid to them for the expenses of the war. A new danger soon threatened the empire in the shape of the invasion of Nadir Shah, King of Persia. Nadir Shah crossed the Indus in November 1738, and having defeated the imperial army, entered Delhi, and received the submission of the emperor. At Delhi the Persian army was attacked by the inhabitants, whereupon Nadir Shah directed a general massacre, and pillaged the city, obtaining immense booty, with which he returned to Persia, having first replaced Mahomed Shah on the throne. In 1740 Bajee Row died, and was succeeded as Peshwa by his son Balajee Row. In 1741 Balajee Row renewed his father's demands upon Malwah, and thereby obtained a patent as the deputy of the emperor in that province. Another invasion of the empire was threatened by the Afghans, who under Ahmed Khan captured Lahore and Mooltaun in 1747, but were defeated in 1748 by Prince Ahmed. In the same year the emperor died, and was succeeded by his son under the title of Ahmed Shah. About the same time died the great Nizam ool moolk, founder of the Hyderabad kingdom, at the age of 104. (17) *Ahmed Shah and Alumgheer II.*—Soon after Ahmed Shah's accession, the Afghans again invaded the Punjaub, which was finally ceded to them. Ahmed Shah then replaced his vizier Sufder Jung by Shahaub ood deen, which event produced a civil war. Sufder Jung finally withdrew to Oudh, and became virtually independent. Finally Shahaub ood deen deposed the emperor and placed Alumgheer II on the throne. Unsuccessful attempts were next made against Oudh and the Punjaub, in retaliation for which Ahmed Shah Abdalee, the Afghan ruler, marched on Delhi and plundered it. He soon departed, having appointed one of his nobles Najeeb ood Dowlah to be commander of the army. Shahaub ood deen having called in the assistance of the Mahrattas, proceeded to Delhi and drove out Najeeb ood Dowlah, and advancing into the Punjaub captured Lahore in 1758. Ahmed Shah Abdalee next advanced against the Mahrattas and defeated them, but before he could reach Delhi, the emperor had been murdered by Shahaub ood deen in November 1759. A final battle between the Afghans and Mahrattas took place at Paniput soon after this, the Mahrattas being defeated with tremendous slaughter. Meanwhile Prince Mirza Jawaun Bakht had become emperor, but was soon superseded by his father Ally Johar, who took the title of Shah Alum. (18) *Shah Alum, and end of the Moghul Dynasty.*—One of the first proceedings of the new emperor was an attempt to recover Bengal from the English, in which he was assisted by the viceroy of Oudh. In the operations that followed the English under Colonel Calliaud and Captain Knox were wholly successful. Shah Alum retired and remained near the northern frontier of Bengal, where in 1761 he was attacked and defeated by Major Carnac. The emperor then, after having visited the English camp, returned to Delhi. In 1764 Meer Cassim, Nawab of Bengal, and the Vizier of Oudh, formed a league against the English, and were joined by the emperor. The confederates however were defeated by Major Munro at the battle of Buxar, and the emperor found himself forced to place himself under English protection. He accordingly commenced negotiations with the Calcutta Council. It was in the end settled that he should retain the sovereignty of a portion of Oudh, and should receive annually twenty-six lakhs of the revenue of Bengal, Behar, and Orissa, in return for which he ceded the diwanny of Bengal to the English. In 1772 the Mahrattas crossed the Ganges, defeated a force sent against them by the emperor, and occupied Delhi, and Shah Alum was forced to cede Allahabad and Kora to them; but they were unable to take possession, as these districts were protected by a British force, and they finally retired beyond the Nerbudda. Najaf Khan was at this time minister at Delhi. He conducted matters with much ability until his death in 1782. Opposite factions then arose, and the emperor appealed to Warren Hastings for protection; but he refused to interfere. The emperor was thereupon induced to have recourse to Scindia, who became minister and commander-in-chief at Delhi. In 1786 Scindia was defeated by the Rajpoots, and during the period of confusion that ensued Ghoolaum Cawder, a Rohilla chieftain, gained possession of

inhabited by a Dravidian race. The extension of the Mahomedan religion into India was ordinarily dependent on their political power. Yet a remarkable exception to this occurred in the case of the conversion of the Rajah of Kerala to Mahomedanism in the ninth century. This occurrence is recorded in the Keralolputty. One of its consequences was the formation of a Mahomedan population, the Moplahs of the Malabar coast. These events however were only partial and local, and deserve no more than a passing mention. The supremacy of the Mahomedans came from the north. Delhi had been captured by the Ghuznee Ghorians in 1193, and a dynasty established there which lasted till A.D. 1288. The Khiljees succeeded, occupying the period from 1288–1321 ; and Allah ood deen, nephew of Jelaul ood deen Khiljee, led the first Mahomedan expedition into the Deccan in A.D. 1294. Ten years later the Mussalman armies under the general Malik Caufoor swept over the whole of the Deccan. The Yadava Devagherry State and the Ganapaty Warangal State were then both reduced to subjection ; and Dwarasamoodra the capital of the Hoysala Ballaulas was taken and sacked. These early inroads reached even to Tanjore and Madura in the extreme south, but how far the Cholan and Pandyan kingdoms were affected politically is not recorded. Anarchy at any rate followed over the greater part of the south ; the Mussalman governors, the representatives of the old royal families, and the minor local chiefs, all engaging in internecine struggles for supremacy. A slight check was given to the spread of the Mahomedan arms when a confederation of Deccany Hindoo chiefs, led by Ganapaty Rajah, defeated a large Mahomedan army. The aspect of affairs was later altered by the revolt of the Deccany Mussalmans against their sovereign in A.D. 1347, which resulted in the establishment of the Bahminy kingdom of Goolburgah in the Deccan[22]. The Hindoos also made one final effort to achieve imperial rule.

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the emperor's person, and blinded him. Ghoolaum Cawder was subsequently captured and executed by Scindia, and the emperor was re-seated on the throne, but all power was with Scindia. In 1803 General Lake defeated the Mahrattas near Delhi, and took possession of the city, and the emperor thus found himself again under English protection. The history of the Moghul dynasty ceases from this period. Shah Alum was succeeded in 1806 by the emperor Acbar II, who in turn was succeeded in 1837 by Bahaudur Shah, the last of the line. When the mutiny broke out in 1857, the mutineers who took possession of Delhi acknowledged Bahaudur Shah as emperor, and there is no doubt that he and the members of his family were implicated in the outbreak. He fell into the hands of the English at the capture of Delhi in September 1857, and in January 1858 was tried by a military commission, and was found guilty of having ordered the murder of forty-nine Christians at Delhi, of waging war upon the British Government, and of exciting the people of India by proclamations to destroy the English. Sentence of death was recorded against him, but commuted by Lord Canning into one of transportation ; and he was eventually sent to Toungoo in Burmah, where he died five years later.

[22] SKETCH HISTORY OF THE SUBORDINATE MAHOMEDAN KINGDOMS OF THE DECCAN.—*Events leading up to the establishment of the Bahminy Kingdom.*—The first expedition of the Mahomedans into the Deccan took place in A.D. 1294, when Allah ood deen, nephew of Jelaul ood deen Khiljee of Delhi, invaded Berar, defeated the Hindoos at Ellichpore, and besieged Devagherry. This place finally capitulated, and the Rajah was directed to pay a large ransom. Allah ood deen then returned to Kora, where he caused Jelaul ood deen to be murdered, and ascended the Delhi throne. In A.D. 1306 Allah ood deen sent an ennobled slave, by name Malik Caufoor, to punish the Rajah Ramadeva of Devagherry who had withheld tribute for three years. The latter was defeated in March 1307 and accompanied his conqueror to Delhi, where he received honourable treatment. In 1309 Malik Caufoor again went to the Deccan to reduce the Ganapaty king of Warangal, Roodradeva, better known as Prataupa Roodra the Second. The expedition was successful. The city was captured, and the Rajah made terms. Next year Malik Caufoor was despatched anew against the Hoysala Ballaulas of Dwarasamoodra. On this occasion he pushed forward with great energy and speed, passed Devagherry, and reached the Malabar Coast, where he built a mosque to commemorate the event. He attacked and stormed the city of Dwarasamoodra, sacked the celebrated Halabeed temple, and returned to Delhi. In 1312 the Devagherry Yadavas withheld their tribute and Malik Caufoor was once more sent to reduce the Rajah to submission. In the campaign which ensued the Mussalmans were completely successful and the Rajah lost his life. Four years later however the Emperor Allah ood deen died and the General Malik Caufoor was then murdered. Moobaurak Khiljee became Emperor of Delhi in 1317, and one of his first acts was to make war for the third time on Devagherry. He captured the Rajah, Haripauladeva, son-in-law of Rama, and, it is stated, flayed him alive. The Nooh Sipihr of Ameer Khoosroo gives a circumstantial account of a defeat of the Rajah of Warangal by Khoosroo Khan, generally known as Malik Khoosroo, in the reign of this sovereign, but no such event is recorded by Ferishta. It is said, the Mahomedans were victorious, and retired after taking from the Rajah all his movable property. The Emperor Moobaurak was murdered in A.D. 1321 by Malik Khoosroo, and the latter was in turn killed by Ghazee Beg Toghlak, viceroy of Lahore. And the latter, inasmuch as all the royal family had been barbarously murdered by Malik Khoosroo was chosen emperor under the title of Ghiyaus ood deen. In 1321 Ghazee Beg Toghlak sent his eldest son, Ooloogh Khan, against Warangal. The capital was invested and a close siege took place. The garrison was on the point of capitulating when a panic seized on the Mahomedans owing to a rumour that the Sultan was dead. Several of the generals fled, and the army became disorganized ; so that, on a desperate sally being made by the garrison, the besiegers were beaten at all points and hastily retreated. In 1323 however the Sultan again made war on Prataupa Roodra with much success. Warangal was then captured and the Rajah carried captive to Delhi. Ghiyaus ood deen was succeeded in 1325 by Mahomed. In 1327 the Mussalman Viceroy of the Deccan rebelled, and the emperor sent an expedition against him. He fled to Cumply close to Vijianugger, whence the emperor's troops were compelled to retreat, the Vijianugger king being too formidable an adversary. The rebel then fled to the Hoysala Ballaula king at Tonnoor in Mysore, but the latter delivered him up to the emperor ; who flayed him alive. In 1338 or 1339 the capital of the Mahomedan empire was removed to Devagherry, which was re-named Dowlatabad by the sovereign Mahomed. In 1341 ensued a revolt in Malabar, and Mahomed started to quell it, but fell sick on the way and returned to his capital. Shortly after this Warangal revolted, and the emperor was unable to effect its reduction. Three years later, in 1344, a Hindoo confederation, consisting of the son of Roodradeva of Warangal, Krishna Naickar, the Roya of Vijianugger, and Ballauladeva of Dwarasamoodra, with an immense force drove the Mahomedans out of Warangal and rolled back the tide of their advance. This reverse was followed three years later by a revolt in the Mahomedan dependencies in the Deccan.



MAP
of peninsular India
illustrating the
Mahomedan period of History.

Scale $\frac{1}{186\frac{1}{2}}$ Inch to the Mile
or $\frac{1}{11827200}$ of nature

93 62 31 0 93 186 Miles

90. THE HINDOO VIJIANUGGER DYNASTY.—While the Mahomedan rebels were consolidating their kingdom in the Deccan, another large power was being formed south of the Kistna. This was the Hindoo kingdom of Vijianugger founded in 1336 by Hukka and Bookka, two refugees from Warangal, and said to have been

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The viceroy of Dowlatabad proclaimed his independence, the royal troops were defeated, and the Dowlatabad viceroy became the first Bahminy king of the Deccan. (2) *The Bahminy kingdom of Goolburgha.*—Hassan the viceroy, now monarch, was originally a poor man who rose to eminence at court mainly by the help of a Brahmin, called Gangoo, whose name he in gratitude added to his own when he established the new kingdom. He fixed his capital at Goolburgha or Hassanabad. He is better known under the title Allah ood deen. His subsequent reign was uneventful. He died on February 10th, 1358, and was succeeded by his son Mahomed. Mahomed plundered the country of the Ganapaties up to Warangal, and then made peace. Subsequently he again invaded the Warangal territory and captured and put to death the Rajah's son, Vinayak or Nagadeva, obtaining possession of Golcondah and its dependencies. In 1365-66 he wantonly made war on Vijianugger, and was guilty of excessive cruelties. He was however successful, and dictated terms of peace. He died March 21st, 1375, and was succeeded by Moojauhid. Moojauhid again made an attack on Vijianugger and more than once invested the city, on one occasion penetrating into the second line of works; but he was compelled to retire. In the retreat he was murdered by his uncle Davood on April 14th, 1378. Moojauhid's sister conspired against Davood in revenge, and on May 19th, 1378, he was assassinated; Mahmood, the youngest son of Allah ood deen, being raised to the throne. Mahmood reigned for 19 years. He died April 20th, 1397, and was succeeded by his son Ghiyaus ood deen. This king was blinded and imprisoned by a slave on June 9th of the same year, and Shums ood deen was raised to the throne; but the sons of Davood attacked Shums ood deen in turn and deposed him on November 15th, 1397. Firoze, Davood's second son, succeeded and ruled for 25 years. In 1398 Deva Rajah of Vijianugger invaded the Bahminy territories, and war ensued which was abruptly ended by the murder of Deva Rajah's son, when the Rajah fled and Firoze was completely victorious. Another war broke out in 1401. Firoze invested Vijianugger successfully, dictated terms, and married the Rajah's daughter. In 1417 the king again attacked Vijiannugger, but was defeated. He died September 15th, 1422, leaving a son Hassan, who however acquiesced in an arrangement by which he was set aside and Ahmed Shah Waly ascended the throne. Ahmed (otherwise called Khan Khanaun) made war on Vijianugger soon after his accession, and was guilty of much unnecessary cruelty. He defeated the Rajah and obtained payment of tribute. A war with Warangal followed, which resulted in the death of its Rajah and the permanent destruction of that kingdom. Ahmed founded the city of Beedar and died there February 19th, 1435. His son Allah ood deen II succeeded. The brother of the latter Mahomed revolted, but was defeated. Mahomed on this occasion received aid from Vijianugger. The capital of the Bahminy kingdom was now definitely removed to Beedar. In 1437 Deva Rajah of Vijianugger again provoked a war, and several determined engagements took place, after which a peace was arranged which lasted for some years. This king died in 1457. He was succeeded by his son Hoomayoon, an unscrupulous prince, who was murdered four years later on September 3rd, 1461 and succeeded by his son Nizam Shah. Nizam Shah was a boy of eight when he came to the throne, but his mother, a very remarkable woman, conducted the government for him with great success, assisted by the celebrated minister, Mahmood Gawaun. The kingdom was invaded in 1461 by a large Hindoo army from Orissa and Telingana, which was driven back. The Mahomedan King of Malwah next attacked Beedar, and invested it while the queen and the young king fled. But a Goozerattee army attacked Malwah and the invaders retreated with great loss. In 1462 the king returned to Beedar. He died suddenly on July 29th, 1463. His brother Mahomed was then placed on the throne. In 1468 the young king, then fourteen years old, took Mahmood Gawaun as his chief minister. In 1469 he reduced the Concan, and wrested it from the power of Vijianugger. In 1471 a relative of the king of Orissa, who had been ousted from the throne, appealed to Mahomed Shah to assist him in the recovery of his rights, and Mahomed accordingly invaded Telingana. He captured Condapilly and Rajahmundry and stayed for some time in that country, residing for three years at Rajahmundry. In 1477 occurred another expedition into Orissa, and the king marched to the sea-coast at Masulipatam. He took the opportunity to advance southwards along the coast as far as Conjeeveram, which he sacked, returning with an immense booty. This was perhaps the first time that the Mahomedan arms had gone so far south. In 1481 the king was unfortunate enough to lose the services of Mahmood Gawaun. A plot was raised against the latter by the chief of a rival faction, Nizam ool moolk Bheiry, and the king, believing Mahmood to be disaffected, put him to death. From this act may be dated the decline of the kingdom. The principal chiefs absented themselves from court and remained on their estates with all their forces. Yoosuf Adil Khan, adopted son of Mahmood Gawaun, was shortly afterwards sent to defend Goa against the Rajah of Vijianugger. Soon after this again the king died, on March 24th, 1482. His son Mahmood II succeeded, Nizam ool moolk Bheiry being his minister. Yoosuf Adil returned to court, but, on an attempt against his life being made, he retired to his estate at Beejapore, and finally proclaimed his independence in 1489. Mahmood went on an expedition to Telingana, and while there Nizam ool moolk was murdered. His son Malik Ahmed at once proclaimed his independence at Joonair in 1489. Imaud ool moolk, Governor of Berar, had also previously revolted in 1489. At Beedar, Cassim Bareed, a Georgian slave, was minister. Cassim Bareed died in 1504, and his son Ameer Bareed became minister, and held the king in absolute subjection. In 1512 Cootb ool moolk, Governor of Telingana, declared his independence at Golcondah. These different revolts reduced the kingdom to the provinces immediately round Beedar. Mahmood died on October 8th, 1518. Ahmed, son of the late king was nominally placed on the throne by Ameer Bareed, but had no power, and died in 1520. His brother Allah ood deen was next placed on the throne, but, on his attempting to rid himself of his minister, he was deposed in 1522 and shortly afterwards murdered. His younger brother Waly was then installed but after two years was poisoned, and Ameer Bareed married his widow in 1524. Calaum Oollah, son of Ahmed, was then enthroned, but he escaped in 1527 and fled to Ahmednugger, where he remained till his death. Ameer Bareed at once threw off all pretence at subjection, and established a new dynasty at Beedar, or Ahmedabad. Thus ended the Bahminy dynasty. The five kingdoms which sprung from it were as follows:—the Imaud Shahy dynasty of Berar, the Adil Shahy dynasty of Beejapore, the Nizam Shahy dynasty of Ahmednugger, the Cootb Shahy dynasty of Golcondah, and the Bareed Shahy dynasty of Beedar or Ahmedabad. (3) *Imaud Shahy Dynasty of Berar.*—Futtoollah Imaud Shah, Governor of Berar, declared his independence in 1484, as mentioned above, but soon after died, and was succeeded by his son Allah ood deen. Towards the end of his reign this king became dependent on the king of Goozerat. He was succeeded by Daryah Imaud Shah, who after a peaceful reign was succeeded by Boorhaun Imaud Shah, during whose minority Berar was annexed by the king of Ahmednugger. The Imaud Shahy dynasty lasted from 1484 to 1527. (4) *Adil Shahy Dynasty of Beejapore.*—This dynasty was founded by Yoosuf Adil Khan, who declared his independence in 1489, and was crowned at Beejapore under the title of Abool Mozuffer Yoosuf Adil Shah. In 1493 the Vijianugger regent invaded the Beejapore territories but was defeated with much loss. In 1502 Yoosuf Adil Shah changed the state profession of faith from the Soonnee to the Shiah. In consequence of this the kings of Ahmednugger, Golcondah, and Berar made a league against him and invaded Beejapore, but the confederacy soon broke up. In 1510 the Portuguese captured Goa, which was finally ceded to them. Yoosuf Adil Shah died in 1510, and was succeeded by Ismail Adil Shah, a minor. The first event in his reign was a plot formed against him by the regent Camaul Khan, which however was defeated. In 1514 the kings of Golcondah, Berar, and Ahmednugger invaded Beejapore, but were defeated. In 1519 the Vijianugger Rajah obtained some success against Beejapore. In 1529 Ismail invaded Beedar, captured Ameer Bareed, and took the city of Beedar. He next attacked the king of Ahmednugger and defeated him. Ismail died in 1534 while engaged in a war with Golcondah. Maloo Adil Shah succeeded, but was shortly dethroned, and his brother Ibrahim Adil Shah placed on the throne. This king's reign was chiefly occupied with struggles with Ahmednugger. Ibrahim died in 1557, and was succeeded by his eldest son Ally. In 1564 the four Mahomedan kingdoms of Beejapore, Golcondah, Ahmednugger, and Beedar, joined in a league against Vijianugger. A great battle was

the sons of Sargama, a petty Carnatic chief of Coorumba origin. The site of the Vijianugger capital was the present Humpy in the Bellary district. Established on the ruins of the Hoysala Ballaulas and the other Hindoo sovereignties, the Vijianugger kingdom speedily rose to a height of influence such as no southern

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fought near Talicote, in which the Hindoos were utterly defeated, and Vijianugger was plundered. By this battle the Hindoo power of Southern India was destroyed. Ally Adil Shah was succeeded in 1579 by his nephew Ibrahim, a minor. The kings of Golcondah and Ahmednugger now besieged Beejapore, but the siege was finally abandoned. After a prosperous reign Ibrahim Adil Shah died in 1626, and was succeeded by his son Mahmood. In 1632 Beejapore was besieged by Asaf Khan the Moghul general, but without effect. Beejapore was again besieged by the Moghuls in 1636, but peace was finally made. Sivajee now began to rise to power, and between 1648 and 1662 wrested the whole of the Concan from Mahmood. Mahmood died in 1656 and was succeeded by his son Ally Adil Shah II. Soon after this Aurungzeeb invaded the kingdom and besieged Beejapore, but peace was finally concluded. Sivajee meanwhile continued to make aggressions on Beejapore, defeated an army sent against him, and plundered the country. In 1672 Ally Adil Shah II died and was succeeded by his son Secunder, a child of five. Sivajee now renewed his depredations, and openly declared his independence. In 1686 Aurungzeeb besieged and captured Beejapore. Secunder Adil Shah lived about three years after as a prisoner of the Moghuls, and at his death the dynasty came to an end. (5) *Nizam Shahy Dynasty of Ahmednugger.*—This dynasty was founded by Ahmed Nizam Shah, son of Nizam ool moolk Bheiry, who assumed independence in 1489. In 1494 he founded Ahmednugger, which took the place of Joonair as capital of the kingdom. In 1499 Dowlatabad was captured, and annexed to the kingdom. Ahmed Shah died in 1508 and was succeeded by his son Boorhaun Nizam Shah, a boy of seven. In 1510 an invasion from Berar was defeated. In 1523 the king married a Beejapore princess. In 1529 the kings of Goozerat, Candeish and Berar formed a league against Ahmednugger, and Boorhaun was obliged to sue for peace, and acknowledge the supremacy of the Goozerat king. In 1531 Boorhaun was utterly defeated by Ismail Adil Shah of Beejapore. In 1544 Boorhaun again made war on Beejapore, and received a severe check, which however he redeemed in the next campaign. Boorhaun died in 1553, and was succeeded by his son Hoossain. Soon after this Ally Adil Shah and Ramrajah of Vijianugger conjointly besieged Ahmednugger, but could not take it. In 1564 occurred the confederacy of the kings of the Deccan against Vijianugger. Hoossain Nizam Shah died in 1565, and was succeeded by his son Moortezah, a minor, whose mother Koonsha Sultauna undertook the regency. During the next few years a desultory war was continued against Beejapore, without much result on either side. Peace was concluded in 1569, and in 1572 Moortezah invaded and conquered Berar, and annexed it to his dominions. The king's mind now became affected, and he abdicated the throne, leaving affairs in the hands of his two ministers Sahib Khan and Salaubut Khan. In 1587 Moortezah was put to death by his son Meeraun Hoossain, who succeeded him. Meeraun was deposed in 1588 and succeeded by Ismail Nizam Shah, who in turn was deposed in 1591, and succeeded by his father Boorhaun. In 1592 an army was sent against the Portuguese, but was defeated with great loss. Boorhaun died in 1594 and was succeeded by his son Ibrahim, who four months afterwards was killed in a battle with the Beejapore army. A boy named Ahmed was now placed on the throne, but as it was discovered that he had no pretensions to royal descent, other claimants of the throne came forward. Some of the nobles now called in the aid of Prince Mooraud Mirza, son of the Emperor Shah Jehaun, who besieged Ahmednugger, but retired on condition that Berar should be ceded to him. The infant son of the late king was now raised to the throne of Ahmednugger. In 1597 the combined armies of Beejapore, Golcondah, and Ahmednugger advanced against the Moghuls in Berar, but were defeated at the battle of Soopa. Ahmednugger was now again besieged by the Moghuls and captured in 1599, the infant king being sent to the Emperor Acbar. Moortezah Nizam Shah II succeeded to the throne, being supported by the famous Malik Ambar. In 1630 the Moghuls advanced on Dowlatabad and defeated Moortezah, who was soon afterwards put to death. Futteh Khan, son of Malik Ambar, raised a boy to the throne, but shortly afterwards Dowlatabad was captured by the Moghuls, and the king sent as a State prisoner to Gwalior; with him ended the Nizam Shahy Dynasty. The kingdom was then annexed to Delhi. (6) *Cootb Shahy Dynasty of Golcondah.*—Sultan Coolee Cootb Shah, the founder of the Cootbshahy dynasty, was a Turcooman chief of the Baharloo tribe, and of the Ally Shakar persuasion. He was born at Sadabad, a village in the province of Hamadaun, and came to seek his fortune in the Deccan towards the close of Mahomed Shah Bahminy's reign. He was soon ennobled by the title of Cootb ool Moolk, or "Pillar of the State," and made governor of Telingana. In 1512 A.D., under the weak government of Mahomed Shah, he declared his independence, and assumed the title of King of Golcondah, the name of his capital, called by him Mahomednugger, after Mahomed Shah Bahminy, but better known by its original name. At the commencement of his reign he was continually occupied in reducing the Hindoo Rajahs of Telingana. In 1533, Ismail Adil Shah invaded his territory and laid siege to the fort of Calyauny. A peace, however, was concluded through the mediation of Boorhaun Nizam Shah. In 1543, in the ninetieth year of his age, Sultan Coolee Cootb Shah was assassinated at the instigation of his second son, Jamsheed. He left three other sons, Cootb ood deen, Hyder, from whom the present city of Hyderabad takes its name, and Ibrahim. The parricide Jamsheed Cootb Shah now ascended the throne, and caused his elder brother, Cootb ood deen, to be blinded. Some time after a war broke out between the kings of Beejapore and Ahmednugger, and Jamsheed supported the latter, but was defeated in several engagements by Asaud Khan, the Beejapore general, and severely wounded. Towards the close of his reign his temper became so morose that his younger brothers fled to Beedar, where Hyder died. Ibrahim then fled to Vijianugger, but hearing of Jamsheed's death, which took place in 1550 A.D., he returned to Golcondah and was proclaimed king, thus putting aside Soobhaun Coolee, the infant son of Jamsheed, who had been for a few months on the throne. Ibrahim Cootb Shah was a prince of great personal valour. When at Vijianugger, he killed in a duel Ambar Khan, an officer in the pay of that court, and on the slaughtered man's brother taking up the quarrel, Ibrahim slew him also. In his public wars, however, Ibrahim showed more craft than courage. In 1558 he joined Hoossain Nizam Shah, King of Ahmednugger, in a war with Beejapore, but deserted his ally before any encounter took place, and soon after joined Ally Adil Shah and Ramrajah of Vijianugger in besieging Ahmednugger. After the fall of that city, with characteristic inconsistency, Ibrahim again united his forces to those of Hoossain Nizam Shah, and in 1564 laid siege to Calyauny, a fort belonging to Beejapore, and, in consideration of this aid, obtained the hand of Beeby Jamaulee, the daughter of Hoossain Shah. Next year he marched with the other Mahomedan kings of the Deccan against Vijianugger, and was present at the capture of the place, and defeat and death of the Rajah. In 1567 Ibrahim captured Rajahmundry, and annexed the whole territory as far north as Chicacole. Afterwards, while in alliance with Moortezah Nizam Shah, of Ahmednugger, in a war with Ally Adil Shah of Beejapore, he made overtures to the latter, who forwarded his letter direct to Moortezah. Incensed at this treachery, Moortezah sent a body of horse to attack Ibrahim's camp, which they surprised, and took from him 150 elephants, at the same time putting the flower of his army to the sword. In order to check the pursuing enemy, his son, Abdool Cawder, asked leave to head an ambuscade and make a counter-surprise; but Ibrahim, jealous of the young prince, ordered him to be confined and then poisoned. He himself died suddenly, A.D. 1581, after a reign of 32 years, leaving six sons and thirteen daughters. He had greatly adorned his capital, Golcondah, and fortified it anew. Among his public works the Hoossain Saugor Tank and the Kalah Chabootrah, or Black Terrace, at Golcondah, may be particularly mentioned. Ibrahim was succeeded by Mahomed Coolee. In 1589 the city of Hyderabad then called Bhaghnugger was founded seven miles from Golcondah, and became the capital of the kingdom. During most of this reign there was a continual frontier war with the Hindoos. It is believed that Mahomed conquered Gundicote, Cuddapah and all the country south of the Pennair, but this seems doubtful. Mahomed died in 1611, and was succeeded by his brother Mahomed, who was succeeded by Abdoollah. In 1656 the Moghuls attached and sacked Hyderabad, and besieged the king in Golcondah. Abdoollah died in 1672, and was succeeded by his son-in-law Aboo Hassan. In 1674 the Moghuls again invaded Golcondah, but were defeated. In 1686 the Moghuls under Prince Mooazzim invaded Golcondah and sacked Hyderabad, forcing the king Aboo Hassan to pay a large ransom. The next year Golcondah itself was captured and annexed by the Moghuls, and the Cootb Shahy dynasty came to an end. (7) *Bareed Shahy Dynasty of Beedar.*—This dynasty may be said to have commenced

kingdom had yet attained, and held the Mahomedans in check for two centuries; but not without reverses. At the first conflict in 1364 between the Bahminy Mahomedans and the neighbouring ruler of Vijianugger, the former depopulated the country. In 1374 Moojauhid Shah of Goolburgha overran the whole peninsula down to Cape Comorin. The Bahminy kingdom presently fell to pieces; being succeeded by five separate kingdoms, hereafter to be named, founded by rival Mussalman leaders. Their jealousies aided the Vijianugger sovereigns in the acquisition of power. In 1479 the first Vijianugger dynasty came to an end, another being instituted by Narsimha. In 1487 this kingdom completely subverted the Pandyan country, Chola having fallen long before. By the close of the fifteenth century the power of Vijianugger was acknowledged as paramount through the entire peninsula. Small principalities existed, such as Mysore, the Reddy chieftainship of Condaveed south of the Kistna [23], Nellore [24], the Gujapaty dynasty of Cuttack [25], the Beydars of Hurpanhully, and the always independent principality of Travancore; but Vijianugger was supreme. Narsimha was succeeded in 1509 by Krishna Roya, who reduced the whole of the east coast of the peninsula into subjection. The dynasty in his day reached its greatest height. His minister was a Brahmin, the well-known Timmaraja. The traveller Edwardo Barbessa describes the city of Vijianugger in 1516 as 'of great extent,

about 1498, when Cassim Bareed, Minister of Mahmood Shah II of the Bahminy, became the real ruler of the kingdom, the king being merely a cypher. Cassim died in 1504, and was succeeded by his son Ameer, who took the government still more into his own hands. In 1514 Mahmood Shah escaped to Imaud Shah, king of Berar, but finally returned and placed himself again under the protection of Ameer Bareed. Mahmood Shah died in 1518, and with him the dynasty of Bahminy kings may be said to have virtually closed. Ameer Bareed however found it inexpedient to make himself actually king, so he placed on the throne first Ahmed, who died in 1520, and then Allah ood deen. This king tried to oppose Ameer Bareed, and so was deposed and put to death in 1522. The next king came to a similar end in 1524, and Ameer Bareed married the queen. The next king Calaum Oollah finally escaped to Beejapore in 1527, and Ameer Bareed then ascended the throne and took the title of king. Ameer Bareed was continually engaged in wars with Beejapore, the king of which defeated and captured him in 1529, and he became for a time commander of part of the Beejapore army, but was afterwards allowed to return to Beedar. He immediately commenced his intrigues again, and subsequently defeated the king of Beejapore, with the aid of the king of Ahmednugger, but soon after died. He was succeeded by Ally Bareed, who in 1565 joined the great Mahomedan confederacy which overthrew the kingdom of Vijianugger. Ally Bareed was succeeded in 1562 by Ibrahim. The remaining kings of the dynasty in succession were Cassim II in 1569, Mirza Ally in 1572, and Ameer II. Their history is not known, and the period of the extinction of the dynasty is uncertain. (8) *Hyderabad.*—After the Deccan kingdoms had finally fallen into the hands of the Moghuls, Zoolfacar Khan was appointed Viceroy of the Deccan by the Emperor Bahaudur Shah, in 1707, and ruled the country from Hyderabad, formerly capital of the Golcondah kingdom, and the chief town in the Deccan. Zoolfacar Khan was soon after succeeded by Davood Khan, who was killed in 1715 in a battle with Hoossain Ally, whom he had attacked by order of the Emperor Ferokshere. Some time before his death, Davood Khan had been succeeded in the viceroyalty of the Deccan by Asaf Jah Nizam ool moolk, who had obtained the appointment from the Emperor Ferokshere in 1713. Asaf Jah was subsequently transferred from the Deccan to Malwah, about which period he seems to have determined to throw off the control of the Delhi Court. Accordingly in 1721 he advanced into the Deccan with an army, and twice defeated the imperial troops sent against him. In 1722 Nizam ool moolk returned to Delhi, and became Vizier to the Emperor Mahomed Shah, but finally resigned this office and returned to the Deccan in 1723. The emperor, who had become very suspicious of him, sent secret orders to Moobariz Khan, Governor of Hyderabad and the Carnatic, to attack him. Moobariz Khan did so, but was defeated and killed, in 1724, and Nizam ool moolk thus obtained possession of all the southern provinces. He eventually became independent ruler of the Deccan, and founded the dynasty of the Nizams of Hyderabad, whose history will be found later under the heading 'Relations with Neighbouring States and Provinces.' (9) *Arcot.*—The Carnatic was originally a dependency of the Deccan viceroyalty, and the first Nawab, Saudat Oollah, was appointed by Davood Khan in 1710. The capital of the kingdom was Arcot, and the Nawabs were called indifferently Nawabs of the Carnatic or of Arcot. The latter title survives in that of the present Prince of Arcot. The subsequent history of the Carnatic will be found later under the heading 'Political Pensioners and Stipendiaries.'

[23] SKETCH HISTORY OF THE REDDIES OF CONDAVEED.—The founder of this family was one of the several petty feudatory chiefs who became independent on the decline of the Warangal kingdom about 1323. The capital of the family was Condaveed, and its authority extended along the Kistna, chiefly in what was formerly styled the Goontoor Circar. On the south they were in contact with the Rajahs of Nellore, on the north with those of Orissa, and on the west with the sovereigns of Vijianugger, beneath whose ascendency they sunk after an independent reign of about a century. The first of the family was Donty Aliya Reddy, an inhabitant of Hanoomaconda, said to have obtained possession of the philosopher's stone. He removed with his treasure to Condaveed, constructed that and other strongholds as Vinoocondah, Bellamcondah, and others and left them to his descendants. From his being the headman of his district, he was termed Reddy, and the family is known as the Reddivaur or Reddies of Condaveed. This is the legend. He was succeeded by his eldest son Poliya Vaima Reddy. The first prince, of whom authentic records exist, is Anoovaima Reddy, who was probably the founder of the political power of the family. An inscription at Amareshwaram on the Kistna specifies his being in possession of Condaveed, Addanky, and Ryechore; his repairing the causeway at Srisheilam and the temple at Amravatty, both on the Kistna; and his defeating various rajahs, amongst whom the Caucateeyas only are of note. He extended his dominions to Rajahmundry on the north, Canjy on the south, and Srisheilam on the west. He was succeeded by his brother Aliya Vaima Reddy, after whom came in turn Comauragiry Vaima Reddy, Comaty Venca Reddy, and Raucha Venca Reddy, the last of the line, at whose death in about 1424 the Gujapaty kings of Orissa extended their power over his kingdom. Condaveed was taken in the reign of Veerabhadra Gujapaty by Krishna Roya, the sovereign of Vijianugger, in the beginning of the sixteenth century. The annals of Orissa however relate the capture of Condapilly and consequently the invasion of the Reddy principality by Capileshwara, who reigned from A.D. 1451 to 1478, and it is not unlikely that he began the work of subversion which Krishna Roya completed. From the latter period till the overthrow of Vijianugger by the Mahomedans, Condaveed continued to be part of the possessions of that state. Another account states that the Reddy dynasty was overthrown by the Mahomedans in 1427. The Reddivaur were great patrons of Teloogoo literature, and Shreenauta, translator of portions of the Pooranas and author of various poetical compositions, flourished under the last of the dynasty.

[24] SKETCH HISTORY OF THE PRINCIPALITY OF NELLORE.—This was the seat of a petty principality at various periods from the extinction of the Chola authority in the upper part of the Deccan to the reign of the Ganapaty

highly populous, and the seat of an active commerce in country diamonds, rubies from Pegu, silks of China and Alexandria, and cinnabar, camphor, musk, pepper, and sandal from Malabar.' The palaces of the king and ministers and the temples are described as 'stately buildings of stone.' According to the same authority the kingdom comprised the whole of the kingdom south of the Kistna. Ramrajah, the minister's son, was reigning in 1564 when his kingdom was conquered by the five new Mahomedan dynasties. The kingdom of Beejapore was founded by Adil Shah in 1489. It retained its independence for 197 years until it was absorbed by Aurungzeeb in 1686. The Nizam Shahy dynasty of Ahmednugger was established in 1487 by Ahmed Nizam. It was subverted in 1637 by Shah Jehaun. Imaud ool Moolk made himself independent at Berar in 1484, and commenced the Imaud Shahy dynasty, which was extinguished at the end of ninety years by the king of Ahmednugger in 1574. Coolee Cootb, a Turcoman who rose to be governor of Golcondah, established his independence there in 1512. This dynasty was subverted by Aurungzeeb in 1687. The dynasty of Beedar was established in 1498 by Ahmed Bareed. This kingdom was of limited extent and the period of its extinction is uncertain. In 1564 these Mahomedan sovereigns combined, defeated the Hindoo army at Talicote, and sacked the capital of Vijianugger [26]. Thus was for ever crushed out all independent Hindoo power from

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princes. It had its own rajahs as late as the reign of Ganapaty Deva, to whom one of them being expelled by his competitor, Bauyana, repaired for assistance. This chief was named Ambhoja Deva. On his death without issue, Maunakeshava was appointed by the Warangal Rajah to be governor of the country, and he was succeeded by his son Maunava Siddhy. The latter is celebrated for his patronage of the family of Ticcana, three grandsons of Bhascaramantry, so named; of whom one was his minister, another his general, and the third and most illustrious a poet, author of the Teloogoo translation of the Mahabharat under the patronage of Prataupa Roodra. On the downfall of the Warangal kingdom, Siddhy Rajah was engaged in hostilities with Cautama petty Rajah of Pulnaud, and both lost their lives in the contest. Their principalities were soon after subdued by the Reddies of Condaveed, just mentioned.

[25] SKETCH HISTORY OF THE GUJAPATIES OF CUTTACK.—The Gujapaty dynasty of Cuttack was founded in the twelfth century A.D. by Choranga or Cholaganga Deva, also called Ananta Vurmah. Ananga Bheema Deva was one of the most powerful kings of this line. He reigned from about A.D. 1175 till 1202, and is said to have built the famous temple of Juggernaut at Pooree. His grandson reigned from 1237 till 1282, and built the temple of Canaurac to the north of Pooree. He extended his dominions southwards as far as Nellore. In the course of the fifteenth century, the Ganapaties penetrated to Conjeeveram, but were driven back by the Vijianugger king. Poorooshottama Deva reigned from 1479 till 1504. He defeated the king of Conjeeveram, and married his daughter. Upon the death of Poorooshottama's son, Prataupa Roodra, in 1532, dissensions arose among the different members of the family and their power gradually declined. Taking advantage of this state of affairs, the Mahomedans from the north invaded Orissa about 1560. In the battle which took place Telinga Moocoonda Deva, the last of the Gujapaty dynasty, was killed, and the Mahomedans overran the country.

[26] SKETCH HISTORY OF THE HINDOO VIJIANUGGER DYNASTY.—(1) *Founders of the dynasty.*—Hukka is otherwise called Harihara. It is probable that he and Bookka took advantage of some public commotion to lay the foundation of a new state. Whatever their previous origin the genealogy from Bookka and Harihara continues unbroken and authenticated. (2) *Description of Vijianugger.*—The situation of Vijianugger was admirably selected both as to the defence of the frontier line of the Toongabudra, and as a position from whence all southern and western conquests could be maintained. As part of "Kishkindyah," under the name of Humpy, it was ancient sacred and classic ground, and was already a place of resort and pilgrimage for Hindoos of the Deccan and Canarese provinces. The city, which included Humpy, was founded on the right, or southern bank of the Toongabudra river, in a plain partly open to the east and west; but to the north-east bounded by a great group of rocks and hills intermingled, through which only a few passes practicable for footmen existed; and to the north, on the left bank of the river, by a natural outwork of the same description of granite rocks and hills rising to a considerable height, the northern faces of which are almost inaccessible, and which left only a confined space between them and the river. In this small plain was founded the town or suburb of "Anagoondy" (the elephant corner); and such passes as there were, being fortified by curtains and bastions, the whole became an almost impregnable position. On the south, the spurs of the lofty Ramandroog hills reached to the city walls, and bounded them on that side; and to the west, the open plain was intersected by fortifications which joined the river on the north bank, and the Ramandroog hills on the south. The enceinte covered a space hardly less than ten square miles, perhaps more; for, including the outwork of Anagoondy, it was not less than four miles in length, by three, or three and a half, miles in breadth. Between Anagoondy and the city, the river Toongabudra rushes through a gorge of the rocky hills before mentioned, its breadth at one narrow pass being not more than twenty yards—in a series of rapids. In this peculiar and interesting locality, the famous Hindoo capital of the Vijianugger dynasty was established, and rose rapidly to eminence. By what means, or at what period the family conquered in succession the provinces to the south and west, can only be conjectured; nor is any record of their early progress existent, except what is supplied by the chronicle of the Bahminy, Adil Shah, and Golcondah kings by Ferishta. (3) *War with Mahmood Shah Bahminy.*—The first king Bookka reigned from 1336 till 1367, and was succeeded by Harihara, who reigned till 1391. By Allah ood deen Gangoo Bahminy, the founder of the first independent Mahomedan dynasty of the Deccan, A.D. 1347, the Vijianugger princes do not appear to have been molested; but in the reign of his son and successor, Mahmood Shah Bahminy I, some remarkable events occurred which prove that in A.D. 1364, thirty-four years after its presumed origin, the Vijianugger kingdom had attained very considerable local power. It was in this year that the Mahomedan king, in the midst of a festival held to celebrate victories over the Hindoo princes of Telingana, gave an order on the treasury of Vijianugger for the payment of some musicians, which they were to deliver; an act of aggression, which occasioned a memorable and destructive war. The Vijianugger king resented the insult, and the messenger from Goolburgha was paraded through the city on an ass, and dismissed. The Rajah then assembled his army, and marched with 30,000 horse, 3,000 elephants, and 100,000 foot, to Adony, whence he began to ravage the Mahomedan territory. Among other operations the fort of Moodgull, then held by a Mahomedan garrison, was besieged and taken, and the garrison put to the sword; and news of this event reaching the Mahomedan king, he swore that "he would not sheathe his sword till he had put to death 100,000 infidels." The Vijianugger prince must have advanced from Moodgull to the bank of the Kistna, then full, in order to dispute its passage; but this did not deter Mahmood, who crossed the river with 9,000 horse, attacked the Hindoos when heavy rain was falling, and, their elephants being unable to act, the rest of the army was seized with a panic, and fled to Adony, leaving their camp equipage and guns in the hands of the enemy. On this occasion Mahmood fell upon the vast bazaar of camp followers,

the south of India. The feeling indeed of the Hindoo population of the south has been always loyal to the ancient Hindoo rulers. Copper-plate documents acknowledging the representatives of the Vijianugger family as paramount sovereigns

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and massacred 70,000 of them; making allowance for exaggeration, it is evident that this was a bloody defeat. It is especially mentioned that artillery had never heretofore been made use of by Mahomedans in the Deccan; but that captured on this occasion was made over to the command of Sufder Khan, "to whom was attached a number of Turks and Europeans acquainted with the art of gunnery." Following up this victory, Mahmood crossed the Toongabudra, and was met by the army of Vijianugger under Bhoja Roya, the Vijianugger minister, who had vaunted that he would bring back the head of the Mahomedan king on a spear. The entire Mahomedan army is described as composed of 15,000 cavalry and 50,000 infantry, of which 10,000 cavalry and 30,000 foot, with the artillery, advanced under the king's general, Khan Mahomed, and were met by Bhoj Mul at the head of 40,000 horse and 500,000 foot. Each party was inflamed by religious animosity, and the combat was fierce and destructive. The commanders of both wings of the Mahomedans were killed, and their troops broke; when the king, at the head of 3,000 horse, changed the fate of the battle. The artillery too had effect upon the Hindoo army, and after a spirited charge by an officer named Mokurrib Khan, in which an elephant became unruly, and, rushing forward, broke the Hindoo line, the day could not be retrieved. Bhoj Mul was killed, and a great slaughter ensued, not only of fighting men, but of the people generally. The Vijianugger king fled from place to place, and at last threw himself into the capital, which Mahmood invested; but being unable to make any impression on the fortifications, and the position being naturally impregnable at every other point, the king had recourse to stratagem. He pretended to be ill, and retreated across the Toongabudra, followed by the Hindoos. When the wide plain north of the river had been reached, the king encamped, as did also Krishna Roya. At night Mahmood assembled his principal officers, and opened to them his plan of a night attack on the enemy, which was forthwith put in execution. The Hindoos had passed a night of carousal, and, wearied by it, had gone to sleep; before dawn however their camp was furiously attacked by the Mahomedans, and a complete route ensued, the Rajah saving himself with difficulty. The scene of this event is the plain to the north of the present Gangauvaty, and its memory is preserved in local legend at Anagoondy. Mahmood now recrossed the river, and began to massacre the inhabitants of all the villages near the capital. Terror-stricken, the people implored their Rajah to make terms with the Mahomedans; and some of Mahmood's officers reminded him that his vow of slaughter extended to only 100,000 infidels: but though he admitted the sanctity of his vow, the king would be satisfied with nothing short of the payment of his musicians, and the ambassadors from Vijianugger forthwith paid the amount. Struck with the remonstrances of the Hindoo ambassadors, the king bound himself by an oath, that henceforward he and his successors would spare all unarmed people in war, a promise which he for his part faithfully observed; and during his reign, which ended by his death in A.D. 1374, no further war with Vijianugger ensued. (4) *War with Moojauhid Shah Bahminy.*—No sooner however was his son Moojauhid Shah Bahminy established on the throne, than he sent a demand to the Vijianugger king to forego his claims to the territory west of the Toongabudra, to give up the fort of Bankapore, and the Doab between the Kistna and Toongabudra rivers. This request was not complied with; the Hindoo king, on his part, asserted his right to the Doab, and demanded that the elephants taken by King Mahmood should be returned. War therefore ensued. The Vijianugger territory was invaded, and the Rajah, not trusting to the defences of his capital, moved to the westward into the forests and jungles of the ghauts, followed by the king; who penetrated to the sea-coast, and repaired a mosque which had been erected at Setoobandha Rameswaram by Malik Caufoor. The Hindoo Rajah had hoped that the climate of the forests would be fatal to the Mahomedans; but it proved unfavourable to himself and his family, and he returned to Vijianugger. He was pursued by the king, who suddenly appeared in the suburbs of the city, and caused the greatest consternation. The place attacked was Camalaupooram, where there was then, and is now, a lake or tank, and a very rich temple upon a rising ground. The temple the king razed to the ground; possessing himself of its jewels, and the gold plates with which the shrine and its pinnacle were covered. The Hindoos attempted to save it, but failed, their sortie being driven back. A general action followed, which appears, from Ferishta's account of it, to have been fought with great valour and much military skill on each side. It may be gathered from the chronicle, that although the Mahomedans claimed a victory, they were nevertheless obliged to retreat. No furthur attack of Vijianugger followed, and the king, with between sixty and seventy thousand captives, moved towards Adony. (5) *Extent of the Vijianugger kingdom in the fourteenth century.*—The Vijianugger kingdom at this period extended from the Kistna to Rameswaram, and from the shores of the Indian ocean to Telingana. It is questionable whether the actual administrative authority of the State ever reached as far as the extreme southern point of the peninsula; but the Vijianugger princes may even then have been powerful enough to levy tribute from the Pandyan kings of Madura and the Cholas of Conjeeveram, both of which kingdoms were declining. The port of Goa, the fortress of Belgaum, and many other places to the westward of Vijianugger, with the Concan, belonged to the Hindoo kingdom; and the rulers of Malabar, Ceylon, and other countries, kept ambassadors at the court. (6) *Reign of Deva Roya.*—Deva Roya came to the throne in A.D. 1391 and reigned till 1414. In the year 1398, peace having subsisted between the rival kingdoms for twenty years, war again broke out between them. On this occasion, Deva Roya was the aggressor, having suddenly invaded the Goolburgha territory (Feroze Shah Bahminy being king) with 30,000 horse and a vast army of foot. His object was to possess himself of the Ryechore Doab, and the forts of Ryechore and Moodgull. He was met by King Feroze on the banks of the Kistna; but his son having been assassinated by an emissary of the king, Deva Roya fled precipitately, and shut himself up. The Mahomedans followed, and again laid waste the country south of that city, and peace was only purchased by the payment of eleven lakhs of hoons (about 4½ millions of rupees), the Mahomedans retaining possession of the disputed territory. This peace did not however continue, for in A.D. 1406, the Rajah having heard of the beauty of the daughter of a goldsmith who resided at Moodgull, sent a detachment of his troops to carry her off; but the girl had fled with her parents, and the troops, in revenge for their disappointment, ravaged the country on their return. Feroze Shah immediately marched upon Vijianugger, and in the first assault obtained a footing in the place; but this could not be maintained, and the Mahomedan army, taking up a position without, remained there for several months, the time being occupied by continual skirmishes. A portion of King Feroze's forces were however sent once more to ravage the southern provinces of Vijianugger, and by another detachment the fort of Bankapore was besieged and taken. Deva Roya had failed in obtaining assistance from the kings of Malwah, Candeish, and Goozerat, and alarmed at King Feroze's intention of attacking Adony, sued for peace. On this occasion the king of Vijianugger was forced to give his daughter in marriage to Feroze, with a portion of ten lakhs of hoons (4 millions of rupees), five muns (120 lbs. weight) of pearls, fifty elephants, and two thousand slaves, together with the fort and dependencies of Bankapore. This wedding was forthwith celebrated with great pomp, and animosities for the time were suspended; but King Feroze conceived himself affronted by a breach of Mahomedan etiquette, and the marriage did not lead to any cordiality on either side. (7) *Vijaya Roya.*—Vijaya Roya succeeded Deva Roya in 1414 and reigned till 1424. No fresh war with the Bahminy king occurred, till after the accession of Ahmed Shah Waly Bahminy, the brother of Feroze, who succeeded him; and in the first year of his reign (1422-23) the territories of Vijianugger were again invaded. Vijianugger was again closely besieged, and the tribute eventually sent to the royal camp, the Rajah's son accompanying it, and escorting the Goolburgha monarch to the frontier. (8) *Pandaura Deva Roya, and his successors.*—Vijaya Roya was succeeded in 1424 by Pandaura Deva Roya. At this period the Vijianugger kingdom had extended considerably southwards, and probably included the whole of Mysore. After this, peace with Bahminy was observed for some years, and no further cause of dispute arose; but on the accession of Allah ood deen Bahminy II in 1435, an arrear of tribute of five years was due, and the king's brother, Prince Mahomed Khan, was sent with an army to demand it. On receiving payment of this tribute the prince rebelled against his brother; and being assisted by the Rajah of Vijianugger, occupied the districts of Beejapore, Sholapore, and Nuldroog in succession, in addition to the Ryechore Doab. Pandaura Roya chafed under the necessity of paying tribute to the Bahminy king, and turned his

are found as late as the year 1793. Ramrajah's two brothers took possession of Penoocondah and Chundragherry, and one of his descendants to this day assumes the title of Rajah of Vijianugger, and has a palace at Anagoondy on the same site.

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attention towards the conquest of that kingdom. Now also, for the first time, he enlisted Mahomedans in his army, and built a mosque for them in his capital, allowing them free exercise of their faith. He also introduced archery into his own army, and 60,000 of his troops were instructed in the art. Finally, in 1443, he crossed the Toongabudra and overran the Doab, his light troops plundering the country as far as Sugger and Beejapore. The Vijianugger and Bahminy forces met near Moodgull, and in two months there were three great actions. Peace ensued, the Rajah paying up arrears of tribute and presenting forty elephants, and receiving in return valuable presents. Ramchendra Roya had succeeded Pandaura Deva Roya in 1450, and reigned till 1479. Allah ood deen Bahminy had been succeeded by Hoomayoon the Cruel in 1457; he, by Nizam Shah in 1461; and he in turn by Mahomed II in 1463, who reigned till 1482, and was followed by Mahmood Shah II, the last king who preserved any semblance of authority in the once powerful Bahminy kingdom. From the period of the war with Allah ood deen Bahminy, therefore, in 1442-43, up to the declaration of independence, in 1489, by Yoosuf Adil Shah, of Beejapore, a period of forty-six years, no disagreement appears to have occurred between the Mahomedans and the Hindoos of Vijianugger; nor were the Mahomedans, on account of internal dissensions, mutual jealousies, and the rapidly advancing dismemberment of the Bahminy kingdom, in a condition to have waged war with their united and powerful rival. The absence of any historical record of domestic occurrences at Vijianugger such as was maintained at all the Mahomedan courts of India, prevents the possibility of discovering the progress the Hindoo kingdom had made from 1442 to 1490. Nor do the details of the Vijianugger inscriptions, beyond mention of the names of the princes by whom, or in whose reigns, they were made, give any clue to the progress of public events. (9) *The new Narsimha dynasty.*—At Ramchendra Roya's death in 1479 Narsimha succeeded, and instituted a new dynasty. He was succeeded in 1490 by Veera Narsimha Rajah, who at his death left three sons, Atchoota, Sadaushiva, and Trimal. These being minors, the country was managed by Krishna Roya, their father's brother, who had previously held the office of prime minister. (10) *Extent of the Vijianugger kingdom at the end of the fifteenth century.*—At this time the Vijianugger kingdom had perhaps attained its greatest eminence and extent. During the long interval of peace with the Mahomedans, the Vijianugger conquests had been extended to Mahanaud, near Ramnaud; Canjy, and Choladesham, the capital and country of the Cholas; Paundy Desham, or Madura; Shreerungam, or Seringapatam; Arcot, Nellore, Mysore, Sunda, Chitaldroog, Hurpanhully, Cuddapah, Yadoogiry, Ryechore, Gadwal, Kurnool, Shorapore, Sugger, and many other places. The whole of the south had been overrun, the actual dominions of Vijianugger reached to the southern border of the plateau of Mysore, and the remnants of the Paundy and Chola kingdoms acknowledged its power and paid it tribute. (11) *Krishna Roya.*—In 1509 Krishna Roya usurped the sovereignty, and ruled the country with much vigour and ability. He was the only Vijianugger prince who ever obtained advantages over the Mahomedans; and he invaded Orissa, the daughter of whose king he married, and extended the authority, if not the actual conquests, of Vijianugger, over the whole of the south of India. The memory of this ruler is still living among the natives of the country, but the Mahomedan historians have taken no notice of him. (12) *The Ramrajah dynasty.*—Apparently Krishna Roya was deposed and succeeded by Ramrajah, a minister; who founded a new dynasty. But the history of this period is most confused. This king it seems "in the course of five or six years had cut off by treachery all who opposed his pretensions to the throne." Believing himself secure, he left the city in charge of a dependant, and went southwards to punish some rebellious feudatories, when a reaction arose in favour of the ancient family; and the uncle of the infant prince, Bhoja Trimal, assembled troops and defied Ramrajah, who, finding it impossible to resist, retired to his own estates. Shortly afterwards, Bhoja Trimal Roya, having strangled the young king usurped the throne; but being nearly imbecile, and a tyrant, the people invited back Ramrajah. At this crisis, Bhoja Trimal offered a large subsidy to Ibrahim Adil Shah I of Beejapore for his support, and the Mahomedan king repaired to Vijianugger and established Bhoja Trimal on the throne. The introduction of a Mahomedan power, however, into Vijianugger, was by no means acceptable to the nobility and the Brahmin priesthood. As soon as Ibrahim Adil Shah had departed, a revolution in favour of Ramrajah occurred, and, on pretence of avenging the death of the infant whom Bhoja Roya had strangled, that person was attacked. In a fit of insanity Bhoja Roya destroyed himself by falling upon his sword, after he had ground all the royal jewels to powder, cut off the tails of the elephants and horses, and blinded them. Henceforth Ramrajah ruled supreme. (13) *The Hindoos defeated at Talicote by the Mahomedans.*—Ibrahim Adil Shah I died in 1557, and was succeeded by his son Ally. At first Ally Adil Shah courted alliance with Ramrajah, and even on one occasion went to visit him in person. These civilities led to a treaty of offensive and defensive alliance against the state of Ahmednugger, then very powerful; and the Beejapore and Vijianugger kings having coalesced, invaded Ahmednugger and besieged the capital. During this campaign the Hindoo auxiliaries behaved with such barbarity, that although Ramrajah was eventually induced to return to his capital, his overbearing conduct had the effect of causing all the Mahomedan kings of the Deccan to combine in a crusade against him. In the year 1564, the plans of the confederates were matured; and having united their forces, they advanced southwards by way of Talicote. The Vijianugger troops had taken up the line of the Kistna as their most advantageous position; but the allies crossed by a skilfully managed manœuvre, and a general action ensued at about ten miles south of the river, where the Hindoos had formed their camp. It is almost impossible to come to a correct conclusion as to the numbers of the forces engaged on each side in this decisive battle. Ramrajah is said to have had 70,000 cavalry and 90,000 foot, archers, and matchlock men, in the field; and by other accounts very many more. The Mahomedans, united, were not probably less than 100,000 strong. During the progress of the fight, all accounts concur in stating that both wings of the Mahomedan army had fallen back, and that little more was needed to insure their complete defeat; but the centre was firmly held by the king of Ahmednugger, with his famous artillery, on which the Hindoos could make no impression. He had no less than 100 guns of all descriptions posted in three lines, the heavy pieces in the first, the light artillery in the second, and in the third "zumbooraks," or swivels. A European Turk commanded the whole. The line was masked by 2,000 archers, who fell back behind the guns when they were charged, and assisted their destructive effect. Ramrajah, who commanded the centre of his own army, after the failure of the first charge against the guns which he had directed in person, began to distribute rewards to incite another, which was made. On this occasion the guns were loaded with bags of the heavy copper money of the country, which caused a terrible slaughter. Five thousand Hindoos are said to have fallen at the muzzles of the guns; and Kishwar Khan Lary, at the head of 5,000 Beejapore cavalry, charging through the intervals of the artillery, carried all before him, and irretrievably routed the Hindoo army. Ramrajah himself, who was endeavouring to escape on foot, was seized and beheaded, and his army fled to Vijianugger. The Mahomedans followed up the victory, and took possession of the capital and kingdom. (14) *Final dismemberment of the Vijianugger kingdom.* After the return of the Mahomedans to their own country, an effort was made to repopulate the city, but it failed. The seat of Government was then fixed at Penoocondah, a strong hill fort and large town on the borders of Mysore; and here the family remained. Parts of the ancient Vijianugger kingdom remained in the possession of petty chiefs. These independent baronies—Hurpanhully, Chitaldroog, and the like—were held by Beydar chiefs, who had probably owned but light allegiance to Vijianugger; and they were gradually settled, and their possessions secured to them by Ally Adil Shah, who eventually established his authority over the provinces which lay immediately south and west of Vijianugger, while the Golcondah kings pressed on southwards in the direction of Penoocondah, which afterwards was sometimes in the hands of one party and sometimes of the other. Little is known of the Vijianugger family after their removal to Penoocondah, where, weakened as they were by the loss of their capital, they had to encounter the forces of the Golcondah king, which were perhaps stronger than those of Beejapore. After many struggles with Golcondah, they were driven out of Penoocondah to Chundragherry, a strong fortress to the eastward, and lost all their dominions to the north and north-west. Some of their vicissitudes can be traced in the history of Mysore, and show occasional vigour in the representatives of the dynasty, and attempts to recover their position. One of these efforts gave

But all real power vanished at Talicote. For a second time the whole of the peninsula was thrown into confusion. The minor chiefs seized the opportunity for throwing off their dependence; and throughout the peninsula arose a large number of petty poligars[27] and small chieftains, whose quarrels and wars and struggles for supremacy kept the country disturbed for two-and-a-half centuries.

91. THE NAICKS OF MADURA.—The only Hindoo chiefs that attained to real power after the close of the Vijianugger dynasty were the Madura Naicks, formerly viceroys of Vijianugger. In the reign of Krishna Roya of Vijianugger the rulers of Tanjore and Madura, that is to say of Chola and Pandya, being at war with each other, Nagama Naick a Teloogoo officer of the Roya, was sent to the support of the Pandyan ruler. After subduing the Chola Rajah, Nagama imprisoned his ally, and assumed the sovereignty, in consequence of which a force was sent against him under his son Vishwanautha Naick. Vishwanautha defeated his father, and sent him prisoner to Vijianugger; and on the death of the Madura ruler which happened shortly afterwards he was made Governor of Madura. He took advantage of the hostilities between the Rajahs of Vijianugger, and their Mahomedan neighbours to convert his government into an independency and was succeeded in it by his descendants. The dynasty continued till the middle of the last century. The greatest of the line was Trimal Naick. The history of Madura has already been detailed, as also that of the subordinate principality of the Maravar of Ramnaud.

92. PROGRESS OF THE MAHOMEDANS.—While the country was in this state the Mahomedans gradually pressed downwards, securing the dominion of the parts south of the Toongabudra and eastwards to the sea, and encroaching southwards; till they had reached the lower confines of the Teloogoo country by the middle of the seventeenth century, and by the beginning of the eighteenth had extended yet further.

93. EUROPEAN SETTLEMENTS IN INDIA.—The first modern European nation to establish a settlement in India was the Portuguese. They occupied Calicut and Goa on the West Coast at the beginning of the sixteenth century; or when Acbar

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them possession of Anagoondy and a portion of their old dominions; but the Mahrattas and Tippoo Sultan prevented effectually the existence of any independent power except their own. Finally, after the capture of Seringapatam, the possessions of the family were limited to the town of Anagoondy and some villages dependent upon it, which were continued to them by the Nizam, and a pension of 1,500 rupees per month was also allowed by the British Government.

[27] SKETCH HISTORY OF THE BEYDAR POLIGARS OF HURPANHULLY.—After the conquest of Vijianugger, in 1565, by the Mahomedan kings of the Deccan, Ally Adil Shah of Beejapore continued the subjugation of the Hindoo districts to the westward and north-westward, which had been held by feudal nobles and viceroys of the Hindoo kingdom. This proved to be by no means an easy task; and the king was materially assisted by the Beydar chieftains of Northern Mysore, who had joined him after the fall of Vijianugger, and with whom the Beydar Naick of Sugger, already in the royal service, had been a successful mediator. The possessions of these Beydar chieftains formed a barrier, as it were, against Mahomedan encroachment to the south, extending from the ghauts eastward as far as Cuddapah. The principal of them were the Poligars of Chitaldroog, Royadroog, Rutnagherry, Hurpanhully, Tarikeray, Jhelly, &c., and they could at all times command the services of large numbers of their clans, who were brave soldiers, although habitual and hereditary freebooters. In the year 1576-7, Ally Adil Shah made an attempt to drive the Vijianugger family from Penoocondah, where they had retreated; but the reigning prince succeeded in detaching Hundiattam Naick of Hurpanhully, the chief of Ally Adil Shah's Beydars, from him; and he, having united with other chiefs of his tribe, distressed the army of Ally Adil Shah so materially that they forced him to raise the siege and retreat to Benkipore. Elated by these successes, the Beydars generally broke into insurrection; and had any energetic movement on the part of the princes of Vijianugger followed, it is quite possible that they might have recovered their capital and re-established their dynasty. The Mahomedan king's army could make very little impression upon these wild mountaineers, who defeated or eluded his best troops. At length policy prevailed over force, the chiefs were guaranteed in their possessions and rights, and they continued in the royal service till in its turn the Mahratta conquest prevailed over the Mahomedan. Such is the earliest record obtainable of the Beydar chiefs in the history of the times. There is little doubt they were one of the most aboriginal tribes in the country; and their clannish attachment and organization, their pursuit of war and plunder as their only occupation, their peculiar tenets and observances, and their innate unchangeable savagery, have always marked them as a notable race. The Beydar chieftains maintained their position during the contests between the Mahrattas and the Emperor Aurungzeeb; but their attachment to the Mahrattas, as Hindoos, was more steadfast than to the Mahomedans whom they served only as successors of the Beejapore kings. Until the power of Hyder Ally arose, their local consequence was not diminished. In the perpetual wars between Hyder and the Mahrattas, in which the chief authority of the Beydar districts was sometimes in the hands of one, sometimes of the other, they fared badly; being obliged to pay heavy contributions to both, which were enforced at the point of the sword. Hence their influence gradually declined, and many of the families became extinct. That of Hurpanhully had shared with that of Chitaldroog, the chief power and influence of the Beydars; and, as nearest to Vijianugger, was most trusted and most employed by Ally Adil Shah. In 1752 the chief submitted to Hyder Ally, and became a valuable and much trusted officer; and up to 1786 he preserved most part of his hereditary feudal territory, with his baronial rights. Whether Tippoo Sultan was weary of these Beydar chiefs, or resented the antiquity of their families and privileges and their local power is not known; but Chitaldroog had previously fallen to his father, and his treatment of the Naicks of Hurpanhully is thus recorded by Wilks:—"On his return (that is, from the districts near and beyond the Toongabudra) by a route passing nearly midway between Hurpanhully and Royadroog, he made detachments, on pretence of dispersing his army in cantonments, of two brigades, with secret instructions, to each of these fortresses; and having previously removed all grounds of suspicion, by repeated personal acknowledgments to the Poligars of those places, for the distinguished services they had rendered in the late campaign, he seized their chiefs

was on the throne of Delhi, yet the Hindoo Narsimha dynasty of Vijianugger and the five independent Mahomedan kingdoms of Beejapore, Ahmednugger, Golcondah, Berar, and Beedar divided the real political supremacy of the Deccan, and the most southern part of India was still under its native Hindoo rulers. The two navigators Vasco de Gama and Cabral were the pioneers of Portuguese commerce, and Albuquerque laid the foundations of Portuguese power in India. Portuguese settlers at no time came into conflict with the English, but fell before the Dutch progress or in consequence of the neglect of their parent country. The Dutch were the second of modern European nations that arrived in India. After previous occupation of various stations in the Eastern Archipelago, they settled at Poolicat, Sadras, Palcole, and other places on the eastern coast of Southern India, from the beginning of the seventeenth century onwards. This was the period of the Poligars, of the Naick rule at Madura, and of the progress of the Mahomedans southwards. The Dutch rapidly dispossessed the Portuguese; and in the next century they in turn surrendered to the English. The Danes also came to Tranquebar in Southern India in the seventeenth century; but their occupation of that settlement was wholly peaceful. Tranquebar was purchased from the Danes by the English in the present century. The earliest possession of the French in the East was Madagascar, but in 1672 they purchased the site of Pondicherry. The relations between the English and French in India were undisturbed until the war of the Austrian Succession three-quarters of a century later, when occurred the important events to be narrated later on. The separate histories of each of these predecessors or rivals of the English in Southern India will be found sketched in the article on Relations with Foreign Powers.

94. THE EARLIEST ENGLISH SETTLEMENTS.—The European nations, as is well known, began their career in this country as merchants. In order to carry on their occupation, they erected factories, which they were obliged to fortify so as to secure themselves from the hostility of the various native powers. The first place at which the English traded on the eastern coast of India was Pettapoly, now Nizampatam, a seaport in the Kistna district[28 to 31]. Captain Hippon in the ship "Globe"

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and principal officers in camp on the same day and hour as his brigades overpowered their unsuspecting garrisons. The cash and effects of every kind, not excepting the personal ornaments of the women, were carried off as royal plunder, and the chiefs were sent to the accustomed fate of Cabbaul Droog." In his own memoirs the Sultan justifies the annexation of these dependencies to his dominions on the ground of the uncertain allegiance of the chiefs to his father, and their conspiracies in regard to himself. The family of Hurpanhully was not, however, extinguished, and in 1792 the conduct of Tippoo's local officers at Chitaldroog drove the Beydars into rebellion, which was suppressed with much difficulty. After the fall of Seringapatam, the Hurpanhully district formed part of those transferred to the Nizam, by whom the family was recognized, and to some extent reinstated. Finally, in the cession of the country acquired from Tippoo south of the Kistna to this Government, Hurpanhully was included, and belongs now to the collectorate of Bellary. The family still exists, but in reduced circumstances.

[28] SKETCH OF THE ORIGIN AND PROGRESS OF ENGLISH INTERESTS THROUGHOUT INDIA—*Attempts to find a north-west passage.*—The Portuguese were the first European nation to turn their attention to India, next came the Dutch, and finally the French and English. Few visits had been paid to the East Indies by English traders previous to the first charter granted to the English Company in the year 1600. The first English attempts to reach India were by the north-west passage. In 1496 Henry VII granted letters patent to John Cabot and his three sons to fit out two vessels for the discovery of this passage. They failed, but discovered the islands of Newfoundland and St. John, and explored the coast of America from Labrador to Virginia. In 1527 Robert Thorne, an English merchant, made a representation to Henry VIII concerning a trade with India, and formed a scheme of opening a traffic by the north-west passage with China. (2) *Sebastian Cabot and Frobisher.*—In 1549 Sebastian Cabot, son of John Cabot, obtained sanction for a charter for the discovery of new lands by the north-west passage, and in 1553 Sir Hugh Willoughby sailed for this purpose, but he and most of his crew perished of cold in a river of Lapland. In 1554 a charter was granted by Philip and Mary to the Russia Company under the name of 'The Merchant Adventurers for the Discovery of Lands, Countries, Isles, &c., not before known to the English,' the first governor of which was Sebastian Cabot. Martin Frobisher thrice attempted to pierce a northern passage to the East in 1576, 1577, and 1578, on behalf of the 'Company of Cathay,' but the expedition failed, and the project was demonstrated to be impracticable by Sir Francis Drake on his return from his celebrated voyage. (3) *Davis and Baffin.*—John Davis conducted three expeditions for the discovery of the passage between 1585 and 1587, under the patronage of a London Company entitled the 'Fellowship for the Discovery of the North-west Passage.' The last attempts to find this passage were made by William Baffin in 1612, 1613, 1615, and 1616. An attempt was then made at overland trade with India through Russia, but it was found impossible to compete profitably with the Portuguese. (4) *The Turkey and Levant Company.*—This gradually led to the formation of the Turkey and Levant Company in 1581, in the hope of establishing trading relations with India by way of the Levant and Persian Gulf. In 1577 Sir Francis Drake fitted out four ships and sailed through the Straits of Magellan, returning home by the Cape of Good Hope. In the course of his voyage he touched at Ternate, one of the Moluccas, the king of which island agreed to supply the English with all the cloves it produced, and Drake was thus the first person to open direct commercial intercourse between England and the East Indies, as well as the first Englishman to circumnavigate the globe. (5) *The first Englishman in India.*—The first Englishman who actually visited India was Thomas Stephens in 1576 unless there be any foundation in fact for the statement of William of Malmesbury that in A.D. 883, Sighelmus of Sherborne being sent by King Alfred to Rome with presents to the Pope, proceeded from thence to India to visit the tomb of St. Thomas (near Madras). Stephens was Rector of the Jesuits' College in Salsette. In 1583 the voyage was made by a different route, as appears by the journal of Ralph Fitch, a merchant of London, preserved in the Collection of Voyages from the Harleian Library. He, accompanied by Newberry and Leedes, went by Tripoli of Ormus, and on to Goa. The Portuguese imprisoned them at Ormus, and again at Goa. Finally Newberry settled down

landed there on the 20th August 1611. He at first had touched at Poolicat, but the Dutch Governor Van Wersicke refused to allow him to trade. Having left an establishment at Pettapoly with the means for carrying on a commerce, he sailed to Masulipatam, where he arrived on the 31st August and proceeded similarly. The

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as a shopkeeper at Goa, Leedes entered the service of the Great Moghuls, while Fitch, after a lengthened peregrination in Ceylon, Bengal, Pegu, Siam, Malacca, and other parts of the East Indies, returned by Ormus to Tripoli, and thence to England. Spain had remonstrated against Drake's passage through the Eastern Archipelago in 1578, but Queen Elizabeth treated this with contempt and issued instructions to Edward Fenton for a voyage to India. Four ships sailed on May 1st, 1582, but the expedition failed totally, only reaching the Brazils, and returning with but one ship out of the four. The famous Cavendish visited the East Indies in 1588. (6) *Extension of trade owing to the defeat of the Armada.*—After the failure of the Spanish Armada, some London merchants despatched three ships to the East by way of the Cape of Good Hope, which sailed from Plymouth on April 10th, 1591. On reaching the Cape one ship was sent back with the sick, while the 'Penelope' and 'Edward' continued the voyage. Of these, the 'Penelope' was lost, but Lancaster, the commander of the expedition, went on in the 'Edward,' and cruised about the Eastern Archipelago, capturing two large Portuguese ships in the Straits of Malacca. The ship then touched at Ceylon and returned homewards. While on the coast of Brazil, nearly all the crew being on shore, the carpenter cut the cable, and the ship drifted out to sea. Lancaster and six men were eventually taken to St. Domingo by a French ship, and he finally reached England alone on May 24th, 1594. The Dutch then took up the matter, and in 1595 sent out four vessels under the command of Cornelius Houtmann. On June 1st, 1596, they reached Sumatra, and finally arrived at Bantam, a Portuguese factory in Java. Here they were ill-treated and imprisoned by the Portuguese, but escaped and finally reached home with three ships in August 1598. They were honorably welcomed, and a fresh expedition of eight ships soon set out, of which four returned in fifteen months with rich cargoes. The Dutch will be mentioned in the next article. In 1596 Sir Robert Dudley fitted out three ships, under the command of Captain Benjamin Wood, for the Indian and Chinese trade, but the expedition was very unfortunate, as none of the ships were ever heard of again. (7) *The first East India Company.*—Finally acting on the counsels of Cavendish, Drake and others, Queen Elizabeth was induced to accede to the request of several rich merchants, and created on the 31st December 1600 a memorable company to whom she granted a charter of exclusive privileges, under the title of "The Governor and Company of Merchants of London trading to the East Indies." It was provided with rules expressed in the charter, embracing all possible contingencies, and a letter was drawn up by the Queen, recommending the expedition and its objects to the care and hospitality of all monarchs and peoples whose countries it might visit. Five ships left England on April 22nd, 1601, but the 'Guest' was unloaded at sea and abandoned. On November 1st, the Cape was doubled, and the fleet, after suffering severely from scurvy, reached Acheen in Sumatra on June 6th, 1602. Lancaster, the commander, immediately opened trade, established a factory at Bantam, captured a Portuguese ship of 900 tons with a valuable cargo which completely filled his ships, and finally went home. (8) *Middleton's expedition.*—Owing to the success of this expedition, the same ships were sent out again under Middleton in 1604. They had a prosperous voyage to Bantam, and extended their trade to Banda and Amboyna; being at first well received by the Dutch, but jealousies afterwards broke out. The 'Susan' foundered on her way home, but the other three arrived safely on May 6th, 1606. The success of these voyages had been so great that it induced a number of private merchants to endeavour to obtain a participation in the trade, and in 1604 James I granted a license to Sir Edward Michelborne and others to trade 'to Cathay, China, Japan, Corea, and Cambaya.' Michelborne, however, on arriving in the East, followed the pernicious example of the Portuguese in plundering the native traders among the islands of the Indian Archipelago. He in this way secured a considerable booty, but brought great disgrace on the English name, and much hindered the company's business at Bantam. As yet therefore India proper had not been visited by any English vessel. (9) *The 'Hector' at Surat.*—The third expedition of the Company consisted of three ships which sailed in 1606 under command of Middleton. The 'Consent' reached Bantam and returned to England in December 1608 with a valuable cargo. The other two ships doubled the Cape and proceeded to Socotra on the coast of Africa. Here they separated, and the 'Hector' under command of Hawkins sailed to Surat, thus being the first English ship to reach India. Hawkins remained here, and sent his ship on to Bantam to rejoin her consort, and both ships then returned to India with full cargoes. Another expedition to Bantam under Middleton in 1609 returned to England in safety. The profit on the whole undertaking proved enormous, and in consequence a new charter was petitioned for, and granted by, King James I in 1609. Upon this three ships were despatched under Middleton. He left one ship at Aden and proceeded to Mocha where his ship ran aground, and he and the crew were imprisoned. They were eventually released and sailed to Surat. Owing to the opposition of the Portuguese nothing could be done here, and accordingly Middleton proceeded to Gogo, not far distant, taking with him Hawkins and his wife. Hawkins' adventures since 1608 had been of a very romantic character. He found that he could not establish a factory or commence trade without an imperial deed of permission, so having the king's letter to the Great Moghul in his possession, he determined to go to Agra and present it in person. He was well received by Jehaungeer with whom he became a personal favourite, and according to the Emperor's wish married an Armenian. The object of his mission however was frustrated by the intrigues of the Portuguese Jesuit missionaries, and accordingly he returned with some difficulty to Surat, where he was taken on board by Middleton. Middleton now stationed himself near the Straits of Babelmandeb, intercepting vessels from India, from which he took Indian products giving portions of his own cargoes in exchange; a method of dealing little better than piracy. He was then joined by three ships under Captain Saris, and the combined fleet having obtained full cargoes set sail for Bantam. Middleton died on the voyage, but Saris proceeded to Japan; where, notwithstanding the jealousy of the Dutch, he was favourably received. The produce of this voyage proved very remunerative. (10) *The 'Globe' at Masulipatam.*—Captain Hippon's voyage in the 'Globe' in the year 1611 possesses an especial interest, as instead of following the usual track he sailed up the eastern coast of India, touching at several ports where he found the Dutch already established. At these places trade was impossible, but he succeeded in establishing a factory at Masulipatam and laid the foundation of subsequent extensive operations. (11) *An armed expedition sent out.*—It had now become evident in England that, considering the superior strength possessed in India by the Portuguese, it was necessary to send out an armed expedition; consequently four vessels of war sailed from England in February 1612 under the command of Captain Best. On arriving at Surat, one of the first operations was a naval engagement with the Portuguese at that place, in which the latter were defeated. As a result of this a treaty was entered into with Jehaungeer in 1613, providing that English settlers or traders at Surat should be protected, that an ambassador from England should reside at the Emperor's court, and that customs dues on imports should not amount to more than 3½ per cent., besides other privileges. Factories were also established at Gogra, Ahmedabad, Cambay, and Ajmeer in connection with that at Surat, and in 1616 at Calicut and Cranganore. (12) *Sir Thomas Roe at Jehaungeer's court.*—Sir Thomas Roe was sent as ambassador to Jehaungeer's court in 1615, and remained there for nearly three years. He was admitted to intimate intercourse with the Emperor, and has left a curious and interesting account of his whole sojourn. In 1620 the Portuguese attacked the English fleet under Captain Shillinge, but were again defeated with great loss. In this year the Company established agencies at Agra and Patna. In 1622 the English, joining with the Persians, attacked and took Ormus from the Portuguese. Meanwhile a new joint-stock capital was subscribed for in England, the largest which had yet been collected. It amounted to £1,600,000 with thirty-six ships. This armament raised the apprehensions of the Dutch, and matters grew worse till they came to a climax at Amboyna in 1623, where on February 27th twelve Englishmen were executed for an alleged conspiracy to take possession of the castle. In India meanwhile the English were more successful. In 1626 a factory was established at Armegam, about seventy miles north of Madras, but it was not well suited for trade, and Masulipatam was preferred. Armegam mounted twelve guns and was the first place fortified by the English in India. (13) *Charles I hostile to the Company.*—King Charles I

Masulipatam station became a well-established factory and was the foundation of the English trade in the East Indies; though the English obtained their first treaty of protection from the Moghul Emperor Jehaungeer at Surat on the other coast two years later. In 1616 factories were established on the West Coast at

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proved hostile to the company, and questioned their charter privileges to such an extent that they were compelled to bring their case under the immediate notice of Parliament. The accusations of the king against the company were not however without foundation. It was notorious that the payment of their servants was insufficient, and that the consequent amount of illicit private trade, at which the company was believed to connive, was enormous. In 1632 the factory at Masulipatam which had been temporarily abandoned in favour of Armegam, was re-established under a treaty with the King of Golcondah. In 1634 Shah Jehaun granted a firmaun, by which the trade of the whole of Bengal was opened to the English, and a factory was founded at Pipplee, near the mouth of the Hooghly. The Portuguese were in the same year expelled from Bengal by the Great Moghul. (14) *A new Company chartered, known as the Courten.*—In consequence of these successes, the factory at Bantam was once more established, but just as the Dutch and Portuguese had come to terms, Charles I granted a charter to a new company in 1635. The ostensible reason of this proceeding was that several charges had been brought against the old company, the most material of which was that they had never established any permanent stations or forts. The real truth however was that the king required money, which Sir William Courten, the projector of the new enterprise, was willing to supply. The rivalry between the two companies lasted for several years, until they finally united under one charter in 1649. (15) *Broughton's disinterested conduct.*—In 1637 one of the Moghul princesses was severely burnt by an accident, and Mr. Gabriel Broughton, the surgeon of an Indiaman, was sent for from Surat. He succeeded in curing the princess, and being desired to name his reward, in a disinterested spirit asked for extended privileges of trade in Bengal for his countrymen. The same surgeon afterwards rendered a second medical service of high value to Prince Shoojah, and obtained permission to establish English factories at Balasore and Hooghly. (16) *Madras founded.*—In 1638 Armegam was abandoned as unsuited for commerce, and in 1639 a new factory was in consequence established by Francis Day at Chennaputnam (Madras) through permission of the Rajah of Chundragherry, the descendant of the sovereigns of Vijianugger, who constructed a fort for the protection of the English settlers, named by them Fort St. George. This settlement was subordinate to Bantam, until raised in 1654 to the rank of a Presidency. In 1642 the first regular despatches were received by the company from Fort St. George and Balasore. Though the success of the new or Courten Company was brilliant at first, it was not continued. During the civil war both companies petitioned Parliament, the old for the abolition of the new, the new for free trade, but the decision of the House was indistinct and unsatisfactory. The Dutch war then broke out, and the trade at Surat was seriously checked by the enemy. At the conclusion of peace in 1654, the long-pending claims of the company against the Dutch were submitted to the arbitration of the Swiss Cantons. The final award in favour of the company was only £88,600 (which included a sum for the benefit of the heirs and executors of the victims of the 'Massacre of Amboyna'), their total claim being £2,600,000. (17) *Amalgamation of the Companies.*—Shortly before this it had been decided in council that the two companies should be amalgamated. This decision was ratified by Cromwell, and a charter issued, which however is not extant. Surat was maintained as a Presidency, with control over the Persian Gulf and the factories on the west coast of India. Madras, or Fort St. George, also became a Presidency, with authority over the factories at Hooghly, Patna, Cossimbazaar, and Balasore. After the restoration the company's affairs improved. In 1661 they obtained a new charter, which, in addition to trading privileges, conferred upon them important political and judicial authority, with power to appoint governors. They were also empowered to make war with any power not Christian, to make reprisals for losses, to build fortifications, and prevent interlopers from trading. These changes considerably increased the power and influence of the company in India. (18) *Bombay ceded by Portugal.*—By the marriage of Charles II with the Infanta of Portugal in June 1661, the island of Bombay was ceded to the English, and an expedition under the Earl of Marlborough was sent, in March 1662, to take possession of it. This was unsuccessful, but the island was eventually transferred in 1664, and handed over to the company in 1668, with all the powers of local jurisdiction. The fortifications were then enlarged and strengthened, and the population rapidly increased. At this time the company's establishments in the East Indies consisted of the Presidency of Bantam, with its dependencies Jambee, Macassar, and other places; Fort St. George and its dependent factories on the Coromandel coast, and in Bengal; Surat with its affiliated dependency of Bombay, and dependent factories at Broach, Ahmedabad and other places; and factories at Gambroon and Bassorah in the Persian Gulf and Euphrates valley. The transactions of this period are very deficient in incidents of history, and, although the French, the Dutch, the Portuguese and the Danes held factories in India as well as the English, it does not appear that local rivalry led to any bad results. In 1664 when Sivajee attacked Surat, the English defended themselves with such success that the Moghul Emperor remitted one per cent. of the duties levied at the port, with exemption from transit duties. In 1668 a factory was established at Vizagapatam. When Sivajee again attacked Surat in 1670, he did not molest the English, but on the contrary tried to conciliate them, and in 1674 Mr. Oxenden went to him as ambassador and entered into a treaty with him. (19) *The Dutch threaten Bombay.*—In 1673 a powerful Dutch fleet of twenty-two ships made its appearance on the west coast and threatened Bombay, but the President, aided by a squadron of French ships, made so strong a show of defence, that the attempt to attack the place was abandoned, and the Dutch had to be satisfied with capturing two ships off Masulipatam. The peace of 1674 put an end to further molestation. The trade of the company became extended to China about the same period. In 1677, the Javanese, at the instigation of the Dutch, sacked the company's factory at Bantam, and killed the agent. In 1681, Bengal was separated from Madras. In 1682, Bantam was taken by the Dutch, and the English driven out. In 1683 Captain Keigwin, the Commandant of the Bombay garrison, imprisoned Mr. John Child, the Governor, who was extremely unpopular, and proclaimed the authority of the Crown, but surrendered the next year to Sir Thomas Grantham, on condition of a free pardon. About this time a factory was established at Tellicherry, and in 1686 another at Tegnapatam (Fort St. David), which was fortified in 1689. (20) *New policy of the Childs.*—At this juncture Sir Josiah Child, the head of the company in England, commenced a new policy. The seat of the Presidency was transferred from Surat, a defenceless position, to Bombay; Sir Josiah's brother, Sir John Child, was appointed to the chief command by land and sea in India; and it was decided that measures of retaliation should be carried out against any native powers who might interfere with the existing trade. This was a great change from the hitherto uniformly conciliatory and submissive conduct of the company. An expedition was sent out from England consisting of ten ships, mounting from twelve to seventy guns, with six companies of soldiers and one company of regular infantry, altogether about 1,000 Europeans, and the point selected for the first operations was Bengal. In October 1686 the town of Hooghly was cannonaded, and the company's agent, Mr. Job Charnock, gained other advantages. In Western India also, attacks were made on the Moghul possessions, and the Emperor's own vessels conveying pilgrims to Mecca were captured. These proceedings were not the avowed acts of the company or of the English Government, but were undertaken by the Childs, professedly on their own responsibility. Had the project succeeded it might have been acknowledged, but it did not succeed. (21) *The English compelled to sue for peace.*—In consequence of these proceedings Aurungzeeb ordered the expulsion of the English from India, and attacks were made on the factories. Charnock was forced to retire to an island named Injellee at the mouth of the Hooghly, where many perished from the climate; Masulipatam, Vizagapatam, and Surat were captured, and Bombay threatened. In Bengal a treaty was now in progress when Captain Heath arrived from England with orders to continue the war, whereupon all the officers of the factories embarked, and after cannonading Balasore the fleet sailed for Madras. It soon became evident that the war begun on this scale could not be maintained, and accordingly the Governor of Bombay made terms. In 1690 another firmaun was issued, by which the former privileges of trade and all the factories were restored. The Emperor demanded the dismissal of Sir John Child, but he had died at Bombay meanwhile. The

Calicut and Cranganore by permission of the Rajah or Zamorin of that country. In 1619 the English established a factory at Poolicat, by the side of one already placed there by the Dutch in 1609. This was effected under a treaty concluded two years before between King James I and the States-General. But in a few years

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above-mentioned proceedings had been directed partly against certain English traders called 'interlopers,' i.e., merchants not belonging to the company, who were very active in over-bidding and under-selling the company in the chief markets. (22) *The United East India Company.*—In 1695 an East India Company with extensive privileges was established in Scotland by Act of Parliament, and in 1698 an Act passed incorporating another company in England, called the 'English Company' or 'The General Society trading to the East Indies.' The result was great over-trading between the rivals and a glut of Indian produce in the English markets. The alarm caused by this led in 1702 to the eventual amalgamation of all traders to India, under the appellation of the United East India Company, which was established under Queen Anne's charter. Six years were allowed for mutual arrangements among the various parties, and the final adjustment was made under an award by Earl Godolphin, dated September 29th, 1708. The position of the English had now materially improved both as regards local and general power. In Western India Bombay formed an impregnable position, highly favourable to trade. On the Coromandel Coast, Madras had become a large city with a strong fort, Negapatam had been obtained and Fort St. David built, while the old settlements at Vizagapatam and Masulipatam were secured by imperial grants. In Bengal, after the peace with Aurungzeeb of 1690, Mr. Job Charnock had returned from Madras, and established a factory at Chuttanuttee or Calcutta. In 1698 owing to the rebellion of Rahim Khan, the unprotected European settlements in Bengal were told to provide for their own safety, and accordingly Fort William was built. (23) *The Company's possessions at this period.*—The company's possessions in 1708 may be enumerated as follows:—In the Red Sea or Arbian Gulf; Aden and Mocha. In the Persian Gulf and Persia; Jask, Bushire, Bassorah, Ispahan, Gambroon and Shiraz. In Western India, and on the Malabar Coast; Cutch, Cambay, Rajbay, Ahmedabad, Broach, Surat, Soowauly, Baroda, Bombay, Rajapore, Carwar, Honore, Bhatcal, Barcalore, Dharmapatam, Cranganore, Mangalore, Cannanore, Poracaud, Carnopoly, Tellicherry, Calicut, Cochin, Quilon, and Anjengo. On the Coromandel Coast, and in Orissa; Tuticorin, Porto Novo, Cuddalore, Fort St. George (Madras), Poolicat, Armegam, Veeravausaram, Inzaram, Pettapoly, Masulipatam, Madapollam, Vizagapatam, Bimlipatam, Biliapatam, Ganjam, Conimere, Fort St. David (Tegnapatam), Jinjee, Balasore, Pipplee. In Bengal and Hindostan; Hooghly, Fort William, Chuttanuttee (afterwards Calcutta), Cossimbazaar, Rajmahaul, Maldah, Patna, Dacca, Lucknow, Berhampore, Agra, Lahore. In further India and the Malay Peninsula; Siam, Cochin China, Pegu, Patany, Quedah, Johore, Cambodia, Ligore. In Sumatra and Java; Acheen, Jambee, Passaman, Priaman, Sillebar, Ticoo, Fort York, Bencoolen, Indrapore, Tyamong, Bantam, Japara, Jacatra. In Borneo; Banjarmassin, and Saccadana. In Celebes; Macassar, and a residency at Menado. In the Moluccas; factories on Lantore or 'The Great Banda,' Amboyna, Rosengyn, Poolo Way, and Pools Roon. In the China Sea; Tonquin, Poolo Condore, Macao, Amoy, Chusan, Tywan (Formosa), Canton, Majindanao. In Japan; Firando. In the Atlantic Ocean; St. Helena, and factories on the west coast of Africa. The vast commerce of England was protected in Bengal by Fort William, in the Carnatic by Fort St. George, and in the west by Bombay on the island of Salsette; while the French had the chief seat of their power at Pondicherry. (24) *Gradual progress.*—The middle of the eighteenth century saw England with a decided pre-eminence in India over the other European powers; and about the same time she began to acquire considerable territorial possessions in the country. Her first enterprises were on the side of the Carnatic; but there she was long held in check by the vigour and power of Hyder Ally. In Bengal her military career opened under dark auspices. Sooraj ood dowlah, the soobahdar, invested Fort William with a large army in 1756, and having forced it to surrender threw the small garrison into the dungeon named the Black Hole of Calcutta, where the greater part of them perished. Soon after however Lord Clive arrived with a reinforcement, and having taken the field, proved in the battle of Plassey how superior a small body of English were to undisciplined numbers of natives. The soobadar was deposed, put to death, and succeeded by his general Meer Jaffer; who was destined to rule altogether as the vassal of the English East India Company. Not being found sufficiently compliant with the tenure, he was superseded, as were others in succession, until 1765 when the company assumed to itself under a reference to the Moghul the sovereignty of Bengal, Behar, and Orissa. At the same time the victories gained over the Nawab of Oudh extended the virtual dominion of Britain nearly to the Jumna. The events in Southern India down to the fall of Tippoo Sultan, Hyder Ally's son, at Seringapatam in 1799, will be detailed in the text. (25) *Defeat of the Mahrattas.*—The large acquisitions of the British now placed them in open rivalry with the Mahrattas, whose power by this time completely pre-eminent above that of the Moghul extended over all the Central Provinces. In 1803, while Marquis Wellesley was Governor-General, this rivalry broke out into open war. The comprehensive plan of the campaign formed by that statesman, seconded by the military talents of Lake and Sir Arthur Wellesley, who on the field of Assye conspicuously displayed those talents which afterwards made him the foremost general of the English army, completely broke the power of the Mahratta confederacy. The Peshwa, its nominal head, was indeed replaced in his supremacy over the military chiefs who had assumed independent power; but an auxiliary force stationed at Poona, his capital, ensured the authority of the Calcutta Council. The British next took into their immediate sovereignty Agra and Delhi, the former capitals of India, after making a pecuniary provision for the last representative of the Moghul dynasty. (26) *The Pindarry War.*—In 1817 a new war was undertaken for the reduction of the Pindarries, a lawless tribe living in the recesses of the Vindhya mountains. Though attempting only a flying and predatory warfare, they spread so wide and caused such desolation that the Marquis of Hastings conceived their suppression to be indispensable. The opening of the campaign however gave occasion for the Mahratta chief Holcar, the Peshwa, and the Rajah of Berar to revolt, on which the contest assumed a very formidable character. The Peshwa was at last defeated, and obliged to retire upon an annual stipend of £100,000. The Peshwa's territory was then occupied in 1818, and divided into four portions for civil administration. (27) *Gradual extension of British power.*—In 1830 the people of Mysore broke out into insurrection owing to the wasteful conduct of the rajah, and the country was consequently taken under English administration in 1833, the Rajah being pensioned. In 1832 the small principality of Cachar was formally annexed on the request of the people. In 1834 Coorg was also occupied and finally incorporated with Mysore. 1841 and 1842 were marked by the disasters in Afghanistaun consequent on the attempt to dethrone Dost Mahomed. The Ameers of Scinde, emboldened by the retreat from Cabool, violated a treaty which they had concluded with the British Government, and they were accordingly conquered by Sir Charles Napier and their territory annexed in 1843. The next annexation was that of the Punjaub in 1849 after the Second Sikh war. This completed the conquest of India within its natural boundaries, the Indus, the Himalayas and the Ocean, effected in less than a hundred years. Sattaura was annexed in 1849; Pegu in 1852 after the second Burmese war. The districts of Berar, Nuldroog, and the Ryechore Doab were assigned by the Nizam for arrears of debt to the English Government in 1853, but the two last were returned in 1860 and only Berar retained. In the same year, namely, 1853, Nagpore and Jhansee were annexed; and in 1856 Oudh, in consequence of the continued maladministration of the king, who had been repeatedly warned. (28) *Survey of English possessions at different dates.*—The extent and progress of the English occupation of India may be seen from the following survey of territorial possessions at different dates. Before 1750; Surat, Fort St. George, St. Thomé, Fort St. David, Devacottah, Fort William, Dacca, Cossimbazaar. At the end of the eighteenth century; Bombay, Madras with some territory round it, the Northern Circars, and the whole of Bengal. From 1785 to 1798 were added Malabar, Dindigul, part of Mysore, and an extension of territory round Madras. By 1801 were added the Carnatic, Tanjore, Trichinopoly, Tinnevelly, Madura, Canara, Orissa, and the Upper and Lower Doabs of the Ganges, extending from Bengal to beyond Delhi, omitting Oudh. In 1814-1816 were added most of the Bombay Presidency and the rest of the Deccan and Peninsula, except Travancore, Mysore, and the Nizam's Dominions. In the north the English possessions had extended to the borders of the Punjaub. Since 1856 the English possessions in India include the whole, except Travancore, Mysore, Hyderabad, Orissa, Rajpootana (except Ajmeer), and Cashmeer,

it was necessary to withdraw this factory owing to the jealousy of the Dutch. In 1625, two years after the massacre of the English by the Dutch at Amboyna, the Company's agents at Bantam in Java suggested to the authorities in Europe the expediency of directing their attention to the trade on the Coromandel Coast, and

all of which are on feudatory terms with the Government while Nepaul and Bhootan remain under the native rule altogether. The British possession on the opposite coast of the Bay of Bengal consist of British Burmah (Tennasserim, Pegu, and Arracan), and Assam further north. (29) *The various stages of the political history of India.*—The whole country has passed through various stages of political history, of which the English occupation is the last. The first stage comprised the long and comparatively peaceful period, when, prior to the invasion of Mahmood of Ghuznee, the nation had sovereigns of its own race and faith. The invasion of India by Mahmood in the early part of the eleventh century, introduces the second or Mahomedan period of Indian history. The Mahomedan empire properly commences from the establishment of the seat of government at Delhi by Cootb-ood-deen in the year 1206; and from that date to the decline of the empire in 1707 is one of the longest periods of foreign rule which any country has ever witnessed. But the Mahomedan rule, like all other despotisms, contained within itself the seeds of decay. Upon its ruin rose the power of the Mahrattas, whose predatory career forms the third stage in Indian history. For more than a century these restless warriors exercised a predominant sway over Indian affairs, holding a considerable extent of territory under their own direct rule, and extorting contributions from most of the other governments in the country. From the final breaking down of the Mahratta confederacy in 1817 commences the absolute sovereignty of the power described in the present note, and which is yet destined to play so important a part in the future history of this ancient nation.

[29] CHRONOLOGICAL TABLE OF THE PRINCIPAL BRITISH ACQUISITIONS THROUGHOUT INDIA.

Date of treaty, &c.	Districts.	From whom acquired.
1661	Bombay	Portuguese.
1756	Bancote, &c... ..	Peshwa.
1757, Dec. 20th..	Twenty-four Pergunnahs, &c.	Nawab of Bengal.
1759, May 14th..	Masulipatam, &c. ..	The Nizam.
1760, Sept. 27th.	Burdwan, Midnapore and Chittagong.	Nawab of Bengal.
1765, Aug. 12th.	Bengal, Behar, &c. ..	The Moghul.
1765, Aug. 30th.	Company's jagheer in the vicinity of Madras.	Nawab of Arcot.
1766, Nov. 12th..	Northern Circars. ..	The Nizam.
1768	Goontoor Circar ..	The Nizam.
1775, May 21st ..	Zemindarry of Benares.	Vizier of Oudh.
1775, Mar. 6th ..	Island of Salsette ..	Mahrattas.
1778, June 17th..	Nagore	Rajah of Tanjore.
1786	Pulo-Penang	King of Quedah.
1792, Mar. 17th.	Malabar, Dindigul, Salem, Baramahaul, &c.	Tippoo Sultan of Mysore.
1799, July 13th..	Coimbatore, Canara, Wynaud, &c.	Conquered from Tippoo Sultan and ceded to the British by the Partition Treaty of Mysore.
1799, Oct. 25th..	Tanjore	Rajah of Tanjore.
1800, Oct. 12th..	Districts acquired by the Nizam from Tippoo Sultan in 1792 and 1799.	The Nizam.
1801, July 31st ..	Carnatic	Nawab of the Carnatic.
1801, Nov. 10th..	Goruckpore, Lower Doab, Bareilly, &c.	The Vizier of Oudh.
1802, Dec. 31st ..	Districts in Bundelcund and Goozerat.	Peshwa.
1803, Dec. 17th..	Cuttack and Balasore.	Rajah of Berar.
1803, Dec. 30th..	Upper part of the Doab, Delhi, Ahmednugger, &c.	Dowlat Row, Scindia.
1805, April 21st..	Districts in Goozerat.	Guicowar.
1815, Dec. 2nd ..	Koomaon and part of the Terai.	Nepaul.
1817, June 13th.	Saugor and Hattah, Dharwar, &c.	Peshwa.
1817, Nov. 6th.	Ahmedabad Farm ..	Guicowar.
1818, Jan. 16th.	Candeish, &c. ..	Holcar.
1818	Ajmeer	Dowlat Row, Scindia.
1818	Poona, Concan, Southern Mahratta Country, &c.	Conquered from the Peshwa.
1818	{ Districts on the Nerbudda. Sumbulpore, Patna, &c. }	Rajah of Berar.
1820, Dec. 17th.	Lands in Southern Concan.	Rajah of Sawantwarry.
1822, Dec. 12th.	Districts in Beejapore and Ahmednugger.	The Nizam.
1824, Aug. 2nd.	Singapore	Rajah of Johore.
1825, April 9th.	Malacca	Dutch.
1826, Feb. 24th.	Assam, Arracan, Tavoy, Tennasserim, &c.	King of Ava.
1834	Coorg	Rajah of Coorg.
1835	Jyntia	Rajah of Jyntia.
1836	Loodiana	Lapsed Territory.
1836	Firozepore	Do.
1838	Part of Protected Sikh States.	Do.
1840	Jaloun	Do.
1840	Kurnool	Rajah of Kurnool.
1843	Khythal	Lapsed Territory.
1843	Colauba	Do.
1843, June ..	Scinde	Ameers of Scinde.
1845	Serampore, Tranquebar.	Danes.
1846, Mar. 9th.	Jullunder, Doab, &c.	Dheoleep Sing.
1847	Part of the Protected Sikh States.	Annexed.
1848	Sattaura	Lapsed Territory.
1849	Punjaub	Annexed.
1849	Jetpore	Lapsed Territory.
1850	Sumbulpore	Do.
1854	Nagpore	Annexed.
1853	Oodeypore	....
1856, Feb. 7th ..	Oudh	Annexed.

[30] CONSPECTUS OF THE DIFFERENT COMPANIES FORMED FOR TRADING TO INDIA.—(1) *The Portuguese.*—The Portuguese, who were the first Europeans to visit India by way of the Cape of Good Hope, doubled by Da Gama, November 22nd, 1497, put their eastern trade into the hands of an incorporated company once only, in the year 1731; when the Portuguese king gave permission to one ship to make one voyage to Surat and the Coromandel coast, to the exclusion of all other ships. Except in this single instance the monopoly of the Portuguese East India trade was always vested immediately in the Crown, until it was abolished in 1752. However, various important articles still continued subject to royal privileges. (2) *The Dutch.*—"The Dutch East India Company" was formally instituted in 1602, by the union of the funds of various rival companies, which had sprung up in Holland in consequence of the success of Houtman's voyage in 1596-97. Exclusive privileges were granted to this company for twenty years, and it gradually engrossed the whole trade of the Spice Islands. In 1619, by treaty between England and Holland, a "Council of Defence" was constituted, composed of an equal number of the members of the English and Dutch East India Companies, under the idea that such an arrangement would put an end to the differences that had arisen between the traders of the two nations, but this was found impracticable. In 1623 the privileges of the Dutch East India Company were renewed for twenty-one years, and again in 1643 for twenty-seven years. (3) *The English.*—The "Levant" or "Turkey" Company

themselves at the close of the season despatched a vessel from Batavia to a place called Armegam 40 miles north of Poolicat, where a small trading establishment was set up. This was not so well suited for trade as Masulipatam, which was preferred as being more immediately adjacent to the seats of native manufacture. The local governor however at the latter place exacted such heavy dues that it was temporarily abandoned. The Masulipatam factory was transferred to Armegam in 1628. The site at Armegam was obtained from the local curnum P. Armoogam Moodelly, and the factory was named after him. Armegam was the first place fortified by the English in India. In 1632 the Masulipatam factory was re-opened

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obtained a charter from Queen Elizabeth in 1581. This company sent merchants down the Persian Gulf, and attempted to open an overland trade with the East Indies, and by the information it obtained gave rise to the project of opening a communication with India by sea. This led to the formation of the first English East India Company which was incorporated by Queen Elizabeth on the 31st of December 1600, under the title of "The Governor and Company of Merchants of London trading to the East Indies." In 1604 King James I violated the company's charter, by granting a license to Sir Edward Michelborne and others to trade in the East. Subsequently in 1609 King James renewed the charter of the London Company. The inconveniences which had been experienced from separate classes of adventurers, partners in the company, fitting out equipments on their own particular portions of stock, induced the Directors to resolve in 1612, that in future the trade should be carried on by a joint stock only, and the next four voyages were undertaken on this principle. In 1617 a second joint stock was formed, and a third in 1631. In 1635 Sir William Courten obtained a license from King Charles I to form another East India Company, also called the Assada Merchants, under the pretext that the London Company had neglected to establish fortified factories, had consulted its own interests only, and in general had broken the conditions of its charter. The two companies traded in opposition for several years, but they finally came to an agreement in 1649, and were united under one charter. In 1655–57 the "Merchant Adventurers" who had been recently chartered, were also united with the London Company. In 1661 a new charter was granted to the company by Charles II, declaring it to be a body politic and corporate. In 1682 owing to disputes between the East India and Levant Companies, an attempt was made to form a new East India Stock, but the scheme was rejected by the Privy Council. In 1689 this project was again discussed and approved of by Parliament, and finally referred to the king. The result was that the old company obtained a new charter confirming all their former privileges. In 1695 an East India Company with extensive privileges was established in Scotland by Act of Parliament. In 1698 an Act passed incorporating the "English Company" or "The General Society trading to the East Indies." To this new stock the London Company subscribed as a corporation. In 1702 the London and English Companies agreed to unite, a period of seven years being fixed for making the necessary arrangements, after which the name of the joint company was to be "The United Company of Merchants of England trading to the East Indies." Matters were finally adjusted in 1708-9. (4) *The French.*—The French made unsuccessful attempts to trade with the East Indies in 1537 and 1578. In 1604 Henry IV granted the first exclusive charter to a company for fifteen years, which in 1611 was extended to a further period of twelve years. In 1615 letters patent were granted to this company, and in 1643 they obtained another charter through Richelieu. In 1664 a charter was granted to another company, instituted by Colbert. In 1687 this company was reduced to great straits by an edict prohibiting the importation of Indian goods into France. The charter of the company was cancelled in 1719, and another company was formed by the French East and West India, Senegal, and China Companies, uniting under the name of "The Company of the Indies, 1719." The exclusive privileges of the company were, by the king's decree, suspended in 1769; and it was finally abolished by the National Assembly in 1790. (5) *The Danes and others.*—The first Danish East India Company was formed in 1612, and the second in 1670. "The Ostend Company" was incorporated by the Emperor of Austria in 1723, their factors being chiefly persons who had served the Dutch and English East India Companies; but the opposition of the maritime powers forced the Court of Vienna in 1727 to suspend the company's charter for seven years. The company, after passing through a very trying existence, prolonged through the desire of the Austrian Government to participate in the growing East India trade, became bankrupt in 1784, and was finally extinguished. When the Ostend Company was suspended in 1727 a number of its servants were thrown out of employment, of whose special knowledge of the East Mr. Henry Köning, of Stockholm, took advantage, and obtained a charter for the Swedish Company, dated June 13th, 1731. The Swedes were thus the very last of the European nations to engage in the ocean trade with India. The Spanish "Royal Company of the Philippine Islands" was incorporated in 1733.

[31] CONSPECTUS OF THE EARLY VOYAGES TO INDIA OF THE LONDON COMPANY—*Introduction.*—The earlier historical voyages of the company are distinguished as the "Separate Voyages" and the "Joint Stock Voyages." (2) *The Separate Voyages.*—The first voyage, 1600–3, was under the 'General' or Admiral James Lancaster, on board the 'Malice Scourge,' re-christened 'Red Dragon.' The other ships completing the squadron were the 'Hector,' commanded by John Middleton, the 'Ascension,' the 'Susan,' and the 'Guest.' Lancaster finally reached Acheen in Sumatra, and opened trade there. He then founded a factory at Bantam, and returned to England without visiting India at all. The second voyage, 1604–6, consisting of the 'Dragon,' 'Hector,' 'Ascension,' and 'Susan,' was commanded by Henry Middleton. This expedition only traded in the Spice Islands, and did not visit India. The third voyage, 1606–9, was under the command of Captain Keeling in the 'Dragon,' accompanied by Hawkins in the 'Hector,' and Middleton in the 'Consent.' The 'Consent' and 'Dragon' went to Bantam, while the 'Hector' proceeded to Surat, being the first English vessel to visit India. Hawkins remained at Surat, and sent his ship on to Bantam. The fourth voyage, 1608, consisting of the 'Ascension,' commanded by Captain Sharpeigh or Sharpey, and the 'Union,' Captain Richard Rowles, was unfortunate. The fifth voyage, 1609, was commanded by David Middleton of the 'Consent,' the only ship sent. India was not visited on this occasion. The sixth voyage, 1610, consisted of the 'Trades Increase,' commanded by Sir Henry Middleton, the 'Peppercorn,' Captain Nicholas Downton, and the 'Darling.' Middleton proceeded to Surat, but found trade impossible owing to the opposition of the Portuguese, so taking Hawkins and his wife on board, he went on to Gogo. He then stationed himself near the Straits of Babelmandeb, intercepting vessels from India, from which he took Indian products, giving portions of his own cargoes in payment. He finally proceeded to Bantam. The seventh voyage, 1610, was made by the 'Globe' under Captain Anthony Hippon. This voyage possesses a peculiar interest; for instead of following the usual track, Hippon sailed up the east coast of India, touching at several ports, where he found the Dutch established. He finally succeeded in establishing a small factory near Masulipatam, and thus laid the foundation of the subsequent extensive trade in Southern India. The eighth voyage, 1611, consisted of the 'Clove,' 'Hector,' and 'Thomas,' all under the command of Captain John Saris. The ninth voyage, 1612, was that of the 'James,' under Captain Edmund Marlowe. The tenth voyage, 1612, consisted of the 'Hoseander,' 'Hector,' 'James,' and 'Solomon,' under the command of Captain Thomas Best. These ships were fully armed as vessels of war, and made direct for Surat, where they attacked and defeated a small Portuguese fleet. The result of this victory was that a treaty was concluded with the Emperor Jehaungeer, by which English traders at Surat were protected, and other privileges were granted to them. This treaty was followed up by the embassy of Sir Thomas Roe to the Emperor at Delhi. The eleventh voyage was that of the 'Solomon,' in Best's fleet, as the ninth was that of the 'James.' The twelfth voyage, also 1612, was that of the 'Expedition,' commanded by Christopher Newport. (3) *The Joint Stock Voyages.*—The first voyage, 1613, consisted of the 'New Years' Gift,' 'Hector,' 'Merchant Hope,' and 'Solomon,' under the command of Downton. This is the only voyage on the Joint Stock Account of general historical interest. There were three subsequent Joint Stock Voyages.

under a "Golden firmaun" from the King of Golcondah. In 1634 a small town called Veeravausaram, 8 miles north of the port of Narsapore in the Godavery district, was occupied for the purposes of a factory. During this period the great preponderance of the English trade was on the Eastern or Coromandel Coast. The natives there had brought the art of painting calicoes to a high pitch of perfection and these commodities were in demand not only in Europe, but also in countries to the eastward, in Burmah, Siam, and what were known as the Spice Islands in the Indian Archipelago.

95. Settlement at Madras.—Whether owing to the ill-will of the Vencatagherry Zemindar whose territory was adjacent, or to the fact that the place was not convenient for the inland trade in piece goods, the Armegam factory did not exist long. Mr. Francis Day, who was then a member of the Masulipatam council and chief of the Armegam factory, proposed a removal to the south of the Dutch settlement of Poolicat, and in 1639 A.D. an arrangement was made with the local Naick called Damarla Vencatadry Naidoo, by which the English were to be allowed a settlement at a small cooppam or fishing village which is now Madras. It was necessary however to have a formal grant from the recognized ruler of the country, who was then Shreerungaroyel, a descendant of the ancient Vijianugger kings. After their defeat by the Mahomedan kings of Beejapore and Golcondah, at the battle of Talicote in 1564 A.D., the broken remnant of royalty had fallen back on their southern possessions; first to Penoocondah on the borders of Cuddapah and Bellary, and then in 1594 A.D. to Chundragherry. From the place last-named the Royel issued his sunnud, granting permission for the English to build a fort. It was one of the last acts of his race, for in 1646 the Cootbshahy kings of the Deccan expelled him from the country, and he became a refugee in Mysore. Direction was made in the sunnud that the settlement should be called after the Chundragherry ruler, namely Shreerungapatnam or the town of Shreerunga; but the Naick desired that it should be called Chennappa after his father, and secured this object. To this day the town is known to natives by no other name than Chennappaputnam or Chennaputnam. Chenna means in Teloogoo fair; and is not to be confounded with the Tamul shinna or chinna, which means small. The term Madras by which the place has always been designated by Europeans can apparently be derived from nothing else than the name of a Sanscrit legendary king of the lunar race, Mundarauz in the Teloogoo form; on the analogy of Doogarauzpatam the alternative form for Armegam. Madras though within the limits of the Tamul language is close to the most southern limits of the Teloogoo language, and under Vijianugger all State nomenclature was Teloogoo. The contention that Madras was derived from Madrissa, a Mahomedan school, will not bear scrutiny; for there can have been no such school there. That of its being derived from மதில் (mathil), the Tamul for an enclosure or fort, is equally unsustainable; there is no evidence that the place was in any way fortified. On the other hand it is not to be supposed that the neighbourhood was a desert locality. Unless the legend of St. Thomas is untrue, which there is no reason to suppose, that Apostle found at Mylapore only three miles to the south and now a suburb of Madras a native town so large as to demand the devotion of his labours to it. It is stated that St. Thomas was put to death by the natives at the neighbouring Mount now known by his name. The story of St. Thomas is told in the tenth book of the Lusiad of Camoens. Brahmins following the Vellaular of Athonday, or settled in the country before them, found the neighbourhood attractive and established large agraharams there. To this day Mylapore is the principal residence of the Brahmins of Madras. In 1503, a century and a half before the arrival of the English, the Portuguese had established a commercial factory at Mylapore, where there had been previously a community of Native Christians; and they named the place St. Thomé. The English in occupying Mundarauzputnam but followed the indications of many predecessors.

96. Without waiting for instructions from the Court of Directors, Mr. Day proceeded to the construction of a fortress, which in India is soon surrounded by a town. The latter he allowed to retain its Indian appellation, but the former he named Fort St. George. The territory granted was a slender strip of land to the north of St. Thomé running six miles along the shore and one mile inland; but it included what was considered to be an advantageous site in the small island

formed by two branches of the river Cooum. This was four hundred yards long by about a hundred yards wide; and it could be easily rendered secure against the predatory attacks of native horsemen. Mr. Day built a wall round the island, laid out the enclosure in streets and alleys, and constructed a fortress in its northern corner. No one but Europeans being allowed to live on the island, the settlement was shortly known as White Town. A large native settlement arose however outside the island formed by weavers and other people of the country, and this was styled Black Town. Both White Town and Black Town were included under the general name of Madrasputnam or Madraspatam.

97. The First Thirty Years of the Madras Settlement.—Prior to 1670 no official records belonging to this Presidency have been preserved, and it is therefore difficult to trace a connected history before that date. Yet it is certain that the half century immediately following the first establishment of the town exhibited for the settlers many uneasy situations. The advance of the Mahomedan king of Golcondah into the peninsula, and the occasional inroads of Mahrattas, hindered the operations of their trade. The Chundragherry Rajah was conquered as above said in 1646 by the Mahomedans; and Necnam Khan, the officer of the king of Golcondah who commanded the country surrounding Madras, then known as the Nawab, was seldom contented with the yearly rent. Presents and fines were exacted, and an embargo was laid upon goods and supplies going to Madras until such were paid. Siege even was laid to the place. Yet it does not appear that after the walls were finished any native army ever captured Fort St. George. The new station was for the first thirteen years of its existence subordinate to the Presidency of Bantam in Java. In 1653 Fort St. George was raised to the rank of a separate Presidency, independent of Bantam, and Mr. Aaron Baker who was the resident Agent became the first Governor. The first direct communication between Madras and England occurred in 1642-43, in which the Agent and Council acquainted the Court of Directors with the absolute necessity of giving a due equipment to the fort. In 1644 the money expended on the fortifications amounted to Rs. 22,940, and it was computed that Rs. 20,000 more would be requisite, with a garrison of one hundred soldiers, to render the station impregnable to the native powers. In 1645 a renewed grant for the settlement was obtained from Golcondah. In 1651 orders having been received from England not to add to the strength of the fort, the Agent stated that unless the fort was strengthened trade could not be extended. Similar representations were made in 1652 on the arrival of the news that a war between England and Holland was imminent. In 1654 however the Directors ordered that the civil establishment should be reduced to two factors, and that the guard should consist of only ten soldiers. The English trade on the Coromandel Coast then declined, as a consequence of the inland wars and the superior force of the Dutch by land and sea. In 1657 complaint was also made that the interference of merchant adventurers had drained the country of goods. By a new arrangement in 1658 all the factories on the Coromandel Coast and in Bengal were made subordinate to Fort St. George. From communications received in 1660 by the Court of Directors, it appears that the trade at Fort St. George was then beginning to revive. Sir Thomas Chambers had the year before become Governor. In 1661, Sir Edward Winter a member of the cavalier party in England was appointed Governor. With a high sense of the prerogative of his nation and of the political exigencies attending the Indian stations, he was nevertheless not supported by the merchants composing his council. By the stand he made against the demands of native powers, a temporary check was given to trade; which circumstance was used to his disadvantage. In 1665 he was superseded on the ground that he had unduly engaged in private trade, which however was not the secret of his character. Mr. George Foxcroft a London merchant succeeded Sir Edward Winter, and the latter then took a seat as second in council. But shortly he convinced himself, or used as a pretext, that the language of the new Governor was treasonable to the English crown, and endangered the position of the settlement; and on that ground seized and imprisoned him with the assistance of the military. From this time Sir Edward Winter found himself in a situation which if loyal to the crown was decidedly mutinous with reference to the Directors. It is not known that any trade was carried on for the benefit of England, and

it was only in 1668 when Mr. Foxcroft had been detained for over two years as a prisoner that he yielded to a royal mandate sent out by Commissioners. Mr. Foxcroft then succeeded and Sir Edward Winter retired to Poolicat and other places. The Directors in 1669 sent out Sir William Langhorne with six Commissioners to investigate the whole of this transaction; and their report disclosing more difficulties in the situation than had been supposed by the Directors, the latter condoned proceedings, recalling however both the parties. In these few words must be mentioned the most remarkable incident that has occurred in the constitutional history of any Indian settlement; for during three years the Madras station was in fact a private station appertaining to Sir Edward Winter, and the Directors were powerless to recover it until they had obtained the royal assistance. The effects of the incident on the political situation are not recorded, but it is probable that the Directors would have lost nothing if they had supported their Agent in the first instance. His views as to the necessity of asserting a supremacy by sea as a counterpoise for weakness by land were reproduced twenty years by a Director himself, Sir Josiah Child. Mr. Foxcroft was succeeded in 1670 by Sir William Langhorne. In that year the fort was besieged by a local Naick or Hindoo district officer, but on application to his superior the Nawab of the Carnatic the siege was raised. In 1662 a Mahomedan general of Golcondah captured the city of St. Thomé. Numbers of Portuguese were on that occasion driven out of the town, and many took refuge in Fort St. George itself and built houses there, thereby strengthening the place.

98. THE SUCCEEDING TWENTY YEARS.—The official records of the Madras Presidency begin in 1670, and by that time the settlement was a place of some magnitude. The White Town contained about fifty houses laid out in twelve streets[32]. The constitution of the establishments had been borrowed from that

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[32] ACCOUNT OF THE PRESENT LOCALITIES OF MADRAS AS EXISTING IN THE MIDDLE OF THE SEVENTEENTH CENTURY.—The fort as first erected was but a small place, not a quarter of a mile long, and only a hundred yards wide from east to west. It was situated at the north-east corner of the present Fort Saint George, and occupied the space between the groyne near the main drain and the officers' quarters to the south of the sea gate of the present fort, while inland it extended only to the railing in front of the Government office, and thence northward parallel to the sea to the present north gate. Five years after its first erection its total cost had been only 23,000 rupees, and the highest estimate of a sufficient garrison was one hundred soldiers. In 1652, thirteen years after its foundation, it was considered safe with a garrison of 26 men. Mr. Day, and the agents who immediately succeeded him, invited the Portuguese and Indo-Portuguese to settle in the neighbourhood; and even lent them money to build upon the open sand under the protection of the fort guns. Subsequently these foreigners became naturalized inhabitants. Their houses were also walled in, and thus formed White Town. During the governorship of Sir William Langhorne, the White Town was found to be too much crowded, and many of the married servants of the company were obliged to take houses in Black Town, receiving an allowance for the extra expenses of board and lodging which they thereby incurred. Of this arrangement the Directors frequently complained, but such were the difficulties in the way of expelling the Portuguese, that no alteration could be made. White Town was divided into twelve streets and alleys, and included altogether one hundred and twenty-nine dwelling houses and godowns including the buildings of the company, producing a yearly rental of one hundred and twenty-four pagodas and nine fanams. The streets were respectively named Middle Street, Choultry Street, Choultry Alley, Gloucester Street, York Street, York Lane, Charles' Street, James' Street, James' Alley, St. Thomas' Street, St. Thomas' Lane, and Church Street. To the south of the fort, where now are the arsenal and bandstand, was a large fishing village, from which came the masulah boats employed for the company's shipping. Beyond that was the open space now known as the island. Southward still was a large sandy plain extending from the sea on the east to the Cooum on the west and from the Government House Bridge on the north to St. Thomé on the south. This plain, of which the four angles are now represented by the bridge over the Cooum Bar, Law's Bridge, Munro Bridge, and Capper House Hotel, was called Choultry Plain; from a choultry which then existed, and is probably that which now stands near the native village of Nungumbaukum. Choultry Plain is now occupied by the districts of Chepauk, Triplicane, Chintaudripett, Royapettah, Nungumbaukum, and Teynampett. Some of these districts were then represented by the villages from which they take their name; but in Chepauk, Teynampett, and Chintaudripett there does not appear to have been then a single house. At a very early period the Madras troops not required to garrison the fort were usually encamped on this plain, and the Commander-in-Chief's garden-house was consequently erected there. Thus the Choultry Plain became his head-quarters, and all general orders were issued from thence. The plain has long since been covered with houses, and at the present time upwards of 70,000 people dwell upon it. By a verbal figment, army head-quarters were till very recently supposed to be in the Choultry Plain. On the north side of the fort a town at once sprung up and increased with great rapidity. Where the northern glacis now is there was established a settlement of rich merchants, and in after years of rich Armenians; the latter being so influential as to be able to build at a very early date the Armenian Church now standing at the south end of Armenian Street. In the same locality were many Portuguese immigrants from St. Thomé, and rich Chetties and Moodelliars from the native population. Still further north were the lower and poorer castes who were attracted to the place in extraordinary numbers by the assurance of security under the English flag. The limits of British territory were marked by a "bound hedge" which continued for a hundred years to indicate the scanty area to which they were first confined. This followed very nearly the line of the Cochrane's Canal and the Triplicane high road, but was afterwards pushed out to Vepery. But within these limits even, the physical features of the place were very different from what they are now. The Cooum, or as it was then called the Triplicane river, ran very much as it does now, except that, from Egmore to the sea, it coursed through a marsh, encompassing several islands and having creeks on either bank. Its bar was where the bar now is, and one of the first public works executed by the Government was the building of a bridge where the Government House Bridge now stands. At first a bridge of boats, piers were soon erected, but the two centre spars were only covered with loose beams which could at any time be carried away, compelling an enemy to ford the river. The water which now forms the north boundary of the island was not there in 1639. Nor indeed is that reach of the stream any portion of the Cooum. Proceeding through a belt of country, of which Cochrane's Canal now marks the centre line, was a stream called the North river. That also lay among marshes, such as still extend for a long

at the earlier settlement of Surat. The Governor or Agent was the first member of council, the Book-keeper was second, the Warehouse-keeper was third, and the Customer was fourth. The duties of these officers may be gathered from their names. The duties of the Customer however were peculiar to the English settlements. He collected customs, rents, and other taxes; and exercised also magisterial functions. His office has been continued uninterruptedly to the present day, remaining now under the designation of the Collectorate of Madras and Sea Customs. The council composed of such four members met every Monday and Tuesday at eight in the morning for the transaction of business. All matters which concerned the Company or their servants, even to the most trifling point, were laid before this council. The Secretary kept a diary of proceedings and consultations; and a copy of it was sent to England each year together with a general letter reviewing the proceedings, while in reply a general letter was received from the Court of Directors. The diaries and letters have been preserved either in India or in England down to the present time. The members of council themselves were known as merchants. Those under them were graded as factors, writers, and apprentices. The Governor drew a salary of three hundred pounds a year, the second in council drew one hundred, the third drew seventy, and the fourth drew fifty. Factors were paid from twenty to forty pounds, writers received ten pounds, apprentices received five pounds. But all servants of the Company were lodged and boarded at the Company's expense. Nor did the salaries thus drawn represent in any way the real incomes. Every servant of the Company was allowed to trade to any port in the East, so long as he paid the custom duties levied by the Company, and did not interfere with the trade between India and Europe. Large fortunes were no doubt made by private trade. Another source of emolument was the receipt of presents from native merchants and others who sold goods to the Company. This however was not permitted by the Company, where it had the power to repress the custom. In addition to the establishment above-named, there was a Chaplain in receipt of a hundred pounds a year, who read prayers each day and preached on Sundays. There was also a Schoolmaster in receipt of fifty pounds a year, who taught the children in White Town. The ordinary administration of justice was as above mentioned conducted by the Collector of Customs, and as Magistrate in the Black Town he sat alone. Europeans were tried by the Governor and Council in the Fort with a jury of twelve Europeans. In the White Town the public peace was maintained by the Agent, as commander of the garrison. In the Black Town it was kept by a native public officer known as the Pedda Naick. In the early days of the settlement, twenty native servants, described as peons, sufficed to keep the peace. Subsequently however the number was increased to fifty. In return for such service the Pedda Naick was granted certain rice-fields rent-free; as also petty duties on rice, fish, oil, and betel-nut. The office of Pedda Naick was hereditary.

99. Sir William Langhorne was Governor of Madras from 1670 to 1677, and in the first year of his administration the Mahomedan ruler of the Carnatic made over to the Company his claim on the customs at Madras for a fixed rent of 1,200 pagodas, or 4,200 rupees per annum. In that year Charles the Second had been

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distance on either side of the canal. Where the Salt Cotaur Station now is was a large island surrounded by the river. The site of the Gunpowder Mills was another island. The main channel followed the course now shown by the canal as far as the bridge between the Penitentiary and Saint Mary's Cemetery. That bridge did not exist, nor was it required, for the short length of apparent river that skirts the south side of the Penitentiary is a canal, dug after the date now being considered. The river bent, as now, suddenly to the north-east at that point and went in the present course as far as the abrupt turn which occurs half way between the Medical Hospital and the Wallajah Bridge. This last turn the North river did not make, but flowed straight on passing where the Saint George's gate now is, and thence in a direct line to the site of the barracks. There it turned to the south, passed along the front of the Government office to the arsenal gate. There it again turned to the east and entered the sea in front of the house now inhabited by the Fort Chaplain. The North river has disappeared. Mr. Day's fort was erected in the space enclosed between the North river and the sea. The North river had several tributary streams. One of them arose near the spot where St. Xavier's Street enters Popham's Broadway and flowed along the Broadway to the site of the Exchange Hall, where it spread out into a large sheet of water, and thence diminishing in size crossed the esplanade where the "Scoop" drain now is. The main drain along Davidson and Umpherson's Streets was constructed in the bed of this stream and occupied the whole of it. The wide hollow was not properly filled up, and to this day that part of Popham's Broadway near the market is lower than mean sea-level. Hence also the title of Popham's Broadway for this street was made when the river was filled up, and the Broadway then occupied all the space between the east side of the present Broadway and the west side of Davidson and Umpherson's Streets. Munnady Street derived its name from the fact that it led to a ford across this stream. In old maps it is marked as "River Street." Other arms of the North river passed through John Pereiras and joined the main stream near the Elephant gate, thus converting Yedapolliem and John Pereiras into an island.

ten years on the throne of England, and an alliance had been entered into between England and France against the Dutch. In 1671 a French fleet arrived in India, and in 1672 the French forces captured St. Thomé from the Mahomedans, who had held possession of it since 1646. Shortly after this the Mahomedan army under the command of a general named Bobba Sahib endeavoured to recover the place. The position of Sir William Langhorne at this juncture was in a high degree critical. He was averse to assisting the French against the interests of Bobba Sahib; and the latter expected the English to join him directly against the French. Furthermore at the same time a Dutch fleet was cruising off the coast of Coromandel, which had attacked the French at St. Thomé, and though it was thence repulsed, there were anticipations that it would attack Fort St George. Sir William Langhorne endeavoured to come to definite terms with Bobba Sahib, but the overtures were rejected. The following is an extract from the subsequent consultations of the Agency, dated 6th May 1678:—"Bobba Sahib, formerly "general of the King of Golcondah's force against the French at St. Thomé, and in "those days a bitter enemy to the English, but now in disgrace and debt, has been "some days here trying all ways to borrow money, and to have an interview with "the Governor, which is refused him by reason of his former unkindness when "he was in power, and he in despair quits the place for Pullimalee, intending to go "to his own country." After a year-and-a-half the French still remained in possession of St. Thomé; within which time they had established a camp at Triplicane, the Mahomedan quarter of Madras, and fortified it more strongly than the English had fortified Fort St. George. In the face of these belligerent powers, and as trade was meanwhile at a standstill, Sir William Langhorne and his council at one time contemplated the advisability of abandoning Madrasputnam altogether, for the neighbourhood of St. Thomé, formerly a source of assistance, was now become the cause of continual anxiety. Afterwards however more energetic measures were decided upon, and at a consultation held on the 2nd February 1674, it being recorded that the interests of the Company, as well as the lives of the residents at the Presidency, were staked upon the issue of the circumstances then present, a resolution was made to enlarge and strengthen the fortifications. It is here to be mentioned that at this time four Frenchmen from Java were staying in Fort St. George; and in May 1674 both the Dutch and the Mussalmans peremptorily demanded their removal. To the demand Sir William Langhorne for a long time paid no attention, because of the English alliance with France; but at length the Mahomedan army laid siege to Fort St. George. The Frenchmen refused to leave the place unless they were permitted to go to St. Thomé, and thither the Dutch and Mahomedans would not allow them to proceed. Finally, the President in Council sent them under passports and an escort to the distant Beejapore, the Mahomedan kingdom in the Western Deccan. On the 26th August 1674, the French were compelled to surrender St. Thomé to the Dutch, which they did on the condition that their garrison should be transported to Europe. At that moment the news arrived from Europe that in the preceding January peace had been concluded between England and Holland. But for this the Dutch would doubtless have followed up the capture of St. Thomé by the siege of Fort St. George; and the fall of the place might well have followed, as the fortifications were still weak, and there were only two hundred and fifty men in garrison. Dr. Fryer the traveller visited Madras in 1674 and has recorded his observations regarding the localities.

100. Sir William Langhorne was recalled from Madras in 1678 on a charge of having given undue advantages to a native merchant called Kesava Veeranna for a consideration, and was succeeded by Mr. Streynsham Master, an Indian servant of the Company who had distinguished himself in a defence of Surat against the Mahrattas. It was at this period that Sivajee, founder of the Mahratta empire, attained the height of his power. He had assumed all the insignia of a monarch; and an English deputation from Bombay had been present at his coronation. This ruler suddenly entered upon an invasion of the extreme south of the peninsula. He set out from his dominions in the Western Ghauts, marched through the Deccan from the north-west to the south-east, and penetrated as far as Tanjore; and on his way he passed by Madras. The entries in the consultation books of the Presidency show that presents were sent to him of ordinary neces-

saries of which he stood in need at a cost of sixty pagodas. There were constant rumours that he was about to attack the English and Dutch settlements. After a while however and having fought several severe battles with the Hindoo ruler of Mysore, the Mahrattas retired to their own country[33].

101. About this time a more regular system of administration of the Indian stations was instituted, and the different ranks of the Company's servants were definitely settled[34]. Other factories had recently been established to the north eastward, and the whole of these continued under the authority of the Madras Government until Bengal was separated twenty years later. In 1678 the Governor

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[33] SKETCH ACCOUNT OF THE MAHRATTA POWER.—The Mahrattas are a Hindoo race speaking one of the Pracritic languages and are supposed to have been originally driven backwards from the north. When first mentioned in authentic history about the middle of the 17th century they possessed a narrow strip of territory on the west side of the peninsula extending from 15' to 21° N. latitude. They were then divided into small principalities like the inhabitants of the rest of the Deccan; and as far as the evidence goes, that had always been their condition. Though possessing a common language and religion they were so little united that they frequently fought against one another in the armies of Beejapore, Golcondah, and Ahmednugger rulers. Their political position was semi-independent even in relation to the Mahomedans. Many of them however garrisoned hill-forts and otherwise took service under the Government. Sivajee, who founded the state of Sattaura and the Mahratta confederation, was the second son of Shahjee, a Mahratta leader of some note, under the Nizam Shahy dynasty of Ahmednugger, and subsequently under that of Beejapore. Sivajee began his predatory career about 1644, and in 1646 acquired his first stronghold, the hill-fort of Torna, by the treachery of the governor holding it on the part of the king of Beejapore, against whom he, in 1648, openly revolted. From that time his course of successful aggression against both Aurungzeeb, then king of Delhi, and the king of Beejapore, was rapid. In 1659 he in person assassinated the general of the army of Beejapore, and attacked the forces, which, thus surprised and deprived of a leader, were for the most part slain, the Mahrattas among the survivors entering the service of their conqueror. In 1662 he had acquired a tract of country 250 miles in length northwards from Goa, and at its widest part 100 miles in breadth; and in this small territory the hardiness and predatory habits of his soldiers enabled him to maintain an army of 7,000 horse and 50,000 foot. In 1664 he extended his predatory expeditions so far that he plundered the rich city of Surat, and with his spoil returned unmolested to his fastnesses. In 1665 he collected a fleet, and commenced a course of piratical depredations against the Mussalmans, who were especially outraged by the capture of the ships, which according to annual usage were conveying pilgrims from India to the Red Sea. In the same year however Sivajee accepted service in the army of Aurungzeeb, by whom he was soon after placed in confinement. From this durance he escaped and returned to his fastness at Ryeghur, after an absence of nearly a year. He there became so formidable that Aurungzeeb admitted him to terms, or rather concluded with him a treaty, by which he was acknowledged as jagheerdar or subordinate proprietor of a territory much larger than that which he had formerly held. An attempt, made by order of Aurungzeeb, to seize Sivajee, caused him to recommence hostilities, in which he was eminently successful, ravaging to a great extent the territories of the sovereign of Delhi, exacting the chowt or black-mail of a fourth of the revenues from such districts as were spared, and in a field action defeating an army of 20,000 men. In rivalry of the king of Delhi, he was in 1675 crowned at Ryeghur with great splendour, adopting in all their extent the ceremonies used by that court on such occasions. He soon after marched towards the Coromandel Coast, and, passing by Madras, took the strong fort of Jinjee, one of the possessions of Beejapore; but in the midst of his triumphs and greatness he was cut off by illness in 1680 in the fifty-third year of his age. His son Sumbhajee succeeded to his possessions, but being devoid of talent, energy, and perseverance, and becoming incompetent from drunkenness and debauchery, was in 1688 made prisoner by the Moghuls, and in the following year put to death by order of Aurungzeeb. Notwithstanding however all the talents, resources, and perseverance of the emperor, the Mussalman cause rapidly waned, and that of the Mahrattas prospered: they multiplied as the Moghul armies decayed. After reducing the Deccan to a desert, they spread over Malwah, and made a powerful inroad into Goozerat, leaving their traces everywhere, in pillaged towns, ravaged fields, and smoking villages. Aurungzeeb, after many campaigns, in which he vainly attempted to retrieve his sinking affairs, died in 1707 at Ahmednugger, whither he had with difficulty led the shattered relics of his ruined host. The rapid decay of the kingdom of Delhi accelerated the progress of the Mahratta power. The officers of the king left in charge of the Deccan first faintly opposed and then conciliated the Mahrattas. A truce was concluded about 1710, by which they yielded the chowt; and this or the confirmation of the agreement, together with a formal grant of their territorial possessions by the emperor in 1719, may be considered as the final establishment of the Mahratta government after a struggle of at least 60 years. The office of Peshwa, "leader" or "prime minister" of the Mahratta empire had always been a place of importance, and Balajee Row, who attained that dignity, succeeded in 1749 in engrossing the whole powers of the State. In 1749 the sovereignty passed from the Sattaura Rajahs to the Brahmin Peshwas, with their head-quarters in the adjoining district of Poona. The descendants of Sivajee became little more than pensioned prisoners, but they clung to the title of Rajah of Sattaura. The battle of Paniput in 1761 broke the power of the Peshwas and the great Mahratta confederacy. But the Peshwa still remained the most important native ruler in India till the rise of Hyder Ally. Repeated wars with the English ended in the final defeat of the Peshwa's army at Ashta in 1818. His territory was thereupon annexed; but the English, with a politic generosity, freed the titular Mahratta Rajah (the descendant of Sivajee) from the Peshwa's control, and assigned to him the principality of Sattaura. Captain Grant Duff was appointed his tutor until he should gain some experience in rule. He assumed sole charge in 1822, but was deposed in 1839. Of the other Mahratta chiefs, some rose to eminence and became formidable enemies to the British power. The first was Scindia. A part of the province of Malwah, which had been separated from the Moghul dominions about 1732, was awarded to him by a grant from Rajah of Sattaura, Oojjein being his capital. The second was Holcar who likewise obtained a considerable part of Malwah, his capital being Indore. The province of Candeish was partitioned between the Peshwa, Scindia, and Holcar. The third chieftain was Futteh Sing, generally called the Guicowar. He divided Goozerat with the Peshwa. The fourth was Purseram Bhow, the Rajah of Kolhapore. The fifth was the Rastia family long settled in the Concan.

[34] SKETCH ACCOUNT OF THE EAST INDIA COMPANY'S EARLY PRESIDENCY ESTABLISHMENTS.—These have been almost sufficiently described in the text. The powers of the Governor and Council in each Presidency were large. They had all the powers given by martial law for the regulation and command of the troops and marine in their service. They were supreme masters over the persons of all the English in the Presidency, this authority having been granted to them by James I in 1624; and under the charter granted to them by Charles I, in 1661, could imprison and send to England all Englishmen not in their service whom they found in India, and who were suspected of being unlawfully engaged in trade. They had power to make war or peace with any prince or people not Christian. The Governor and Council had at first supreme civil and criminal jurisdiction in their own factories, and over their own servants. Subsequently their powers were reduced by the establishment of different courts, for which reference can be made to the History of Courts, &c., at page 265. The other company's officials were called respectively 'writers,' 'factors,' 'junior merchants,' and 'senior merchants.' This classification was made in 1676, and these designations continued till the last. The 'writers' were cadets sent out between the ages of fifteen and twenty-two, the appointments being secured by interest with the Directors. They were placed in the various offices necessary for the conduct of the government, and received a salary merely nominal, at the same time having permission to trade, so long as their private operations did not

and Council constituted themselves according to their hitherto existing practice, but more formally, into a Supreme Court of Judicature; for dealing with Europeans and for listening to appeals. This in 1684 was superseded by an Admiralty Court presided over by a Judge Advocate from England. The Admiralty Court by fusion with the Recorder's Court hereafter to be mentioned became in 1801 the first Supreme Court appointed by the Crown; and the latter by fusion with the East India Company's Sudder Court hereafter to be mentioned became in 1862 the present High Court. In October 1680 there were difficulties of internal administration at Madras. A strike took place regarding taxes amongst the inhabitants who dyed native calicoes and were known by the name of painters, and the whole body left the Company's jurisdiction and went away to St. Thomé threatening to assassinate such native servants of the Company as refused to join them. These men also prevented provisions and goods from entering the town. The Governor and Council thereupon entertained a hundred Portuguese to keep guard over the calico-washers, that they might not follow the same example. The wives and children of the mutineers were taken out of their houses in Black Town and driven into the pagoda; and it was proclaimed by beat of drum that unless the mutineers delivered themselves up within ten days, all their houses, goods and chattels within the jurisdiction of the Company would be confiscated. Eight days afterwards the ringleaders were arrested at St. Thomé, and brought within the Company's territories. These were committed to prison; and on the same evening the remainder came into the town and made their submission. St. Mary's Church in Fort St. George was opened in this year.

102. Mr. Master held the same views as had previously been held by Sir Edward Winter as to the necessity of accompanying commercial enterprise in the Indies with the exhibition of considerable material force. The experiences which he had gained by residence in the country had also taught him to understand the characters of the different authorities with whom he had to deal, and to give to each his station. As a result of this disposition he came into conflict with Lingappa the Poonamallee Naick, preferring to deal direct with the Mahomedan Court at Golcondah rather than through the intervention of that official. The claims of the latter for presents were refused, and when force was used it was met by force. The Directors in England however were not at this time prepared to sanction proceedings which transgressed ordinary mercantile custom, nor had they any knowledge of native character, and they recalled Mr. Master. Remaining in the country for a short while after he was relieved of the highest office, he was exposed to great indignities. The grounds stated for Mr. Master's recall were the usual allegation that he had engaged in private trade of a nature detrimental to the Company's interests; but the real cause was an incompatibility of temper between him and his employers, arising out of divergent views as to policy.

103. Mr. William Gyfford who succeeded Mr. Master in 1681 soon gave offence to the Directors in an opposite direction, by undue compliance with the desires of the native inhabitants of Madras to escape taxation. The Directors had been for a long time anxious to raise a quit-rent from all the householders in Madras, Native and European. They hoped by so doing to defray the yearly charge for repairs and fortifications. Mr. Master had succeeded in raising some such tax; applying it however not for repairs or fortifications but for promoting the sanitation of the Black Town. On his departure the native inhabitants of Black Town petitioned against the tax, and the new Governor abolished it. On the 20th September 1682, the Directors wrote to the Government of Madras as follows:—" Our meaning as to the revenue of the town is that one way or another,

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interfere with the public trade of the company. Under this system even the youngest writers contrived to amass large fortunes. The writers, after a period of service, became 'factors,' and were entitled to higher pay and enlarged privileges, being considered no longer as cadets, but as members of the company. The next grade was that of 'junior merchant.' Finally came 'senior merchant,' from which body the members of council and the body of Directors at home might be chosen. The warehouses of the company were called 'factories,' which for security were usually fortified. In these factories the presiding manager was an English overseer, with his secretary (called, if a native, a 'Banyan'). When a magistrate, this overseer had his court (or 'cutcherry'), with an interpreter, and a clerk ('mohurrer' in Hindostany). He had also the control of the accounts, and for this purpose a cashkeeper was placed under him. The business of the office was carried on by native paid servants called 'peons,' and 'harcarras.' The factories were situated in various districts called 'aurangs' (the Hindostany word for factories), over each of which was a goomasta, or principal agent, with his peons. The defence of the Presidencies was maintained by European soldiers, native regiments of sepoys, and an armed police.

"by Dutch, Portuguese, or Indian methods, it should be brought to defray at least "the whole constant charge of the place, which is essential to all governments in "the world. People protected ought in all parts of the universe, in some way or "other, to defray the charge of their protection and preservation from wrong and "violence. The manner of raising which revenue we shall leave to your discretion, "as may be most agreeable to the humour of that people." This order was frequently repeated, and Mr. Gyfford was at length compelled to decide that a small monthly tax should be levied on all the inhabitants. The heads of the castes were sent for, and they were told that if they were not willing to pay this tax they must sell their houses and remove elsewhere. They agreed to pay annually "nine "fanams for every great house, six fanams for every small house, and three fanams "for every little round-house." The matter nevertheless remained in abeyance till January 1686, when in consequence of peremptory orders from England Mr. Littleton was appointed to collect the tax. A tumult ensued and all shops were shut. To suppress the sedition an armed force was accordingly called out. Proclamation was made that if the heads of the castes did not submit themselves before sunset, their several houses would be pulled down, the ground would be sold, and themselves and their families would be banished the town for ever; and that if the bazaar-people did not open their shops and carry on business as usual, their shops would be confiscated and a fine would be inflicted. The next morning the heads of the castes appeared before the council, and stated that they would not obey their orders; but on perceiving that the latter were determined in the matter, they complied. In 1682 there was a great inundation of the sea at Madras. In the same year the Court of Directors approved of the establishment of a Bank at Madras. At this period special mention is made of the interlopers, or private traders, whom the Company's agents were instructed to seize where practicable. On the 12th December 1687, the population of the city of Madras, Fort St. George, and the villages within the Company's boundaries, was reported in the public letter to the Court of Directors, to be 300,000 persons. In 1687, Pondicherry was established by the French and in 1690 Fort St. David was built by the English.

104. Affairs in Connection with Bengal.—Mr. Elihu Yale became Governor in July 1687. The early years of his administration are marked by circumstances of importance in connection with the general history of India. The head of the Company in England at this time was Sir Josiah Child, who instituted a policy in India which had not before been accepted by the Directors, with a view to taking measures of retaliation against the interlopers and native powers who had interfered with the Company's trade. A force had been sent out consisting of ten ships and about 1,000 European soldiers, Bengal being selected for the first operations. In October 1686 hostilities broke out at Hooghly prematurely and before all the forces had arrived in Bengal, owing to a quarrel between some English sailors and the police. The affray became general, and finally Captain Nicholson in command of that portion of the fleet cannonaded the town and committed the greater part of it to the flames. The Nawab of Bengal was desirous of yielding and coming to some arrangement, and the extent alone of the English demands rendered this impossible. The English then repaired to Chuttanuttee and fortified themselves there. At Bombay also on the other coast Sir John Child brother of Sir Josiah Child and Governor made successful ventures by sea against the Moghul shipping. These successes were however only temporary, and the English at Chuttanuttee were forced to retire from that place and establish themselves on the island of Injellee at the mouth of the Hooghly, where they suffered much from sickness. The Emperor Aurungzeeb now acted himself with vigour against the English. Masulipatam and Vizagapatam were taken with some loss, and the factory at Surat was seized. In 1688 Captain Heath arrived in Bengal in charge of a fleet and with orders to persevere in the war; consequently negotiations that were pending were broken off. All the officers of the Bengal factories including Mr. Job Charnock the Company's Agent in Bengal were embarked on board Captain Heath's ships, and after cannonading Balasore the fleet sailed for Madras and left there the civil establishments. At this moment the English held nothing but their two forts of Bombay and Madras, and in such a position of affairs Aurungzeeb might have pressed his advantages. Though master however on land, he was powerless by sea; and considerations connected with the maritime trade and the

pilgrimage of Mahomedans to Mecca induced him to come to terms with the English. The factories were restored, and Mr. Charnock returned to Chuttanuttee; where shortly in the neighbouring village of Calcutta he laid the foundations of the future metropolis of India. In 1688 a mayor and corporation were established in Madras, whose court for the minor administration of justice continued until 1797, when under the presidency of an English Recorder it assumed the title of a Recorder's Court. The Recorder's Court was merged in the Supreme Court of 1801. In 1688 also instructions were sent out for the establishment of a mint. Anxiety was caused at this period by the appearance of English pirates on the Coromandel Coast. To this period also belongs the first appearance of the Armenians in Madras. By a contract made with the Directors of the Company in June 1688, they were invested with certain privileges and rights, and were thus encouraged to reside within the English settlements.

105. THE MAHRATTAS.—The affairs of Madras were at this time intimately connected with the Mahrattas. The country between the rivers Kistna and Coleroon is known by the general name of the Carnatic. Politically it was divided at this time into a northern and a southern region, which may be distinguished as the Moghul Carnatic and the Mahratta Carnatic. The Moghul Carnatic had been previously a province of the independent Mahomedan State of Golcondah and had recently owing to the conquests of Aurungzeeb become a province directly under the Moghul; and this included the English settlement at Madras. The Mahratta Carnatic comprised the southern region which had been conquered by Sivajee, and included the French settlement at Pondicherry. The frontier between Moghul and Mahratta dominion was formed by the celebrated fortress of Jinjee. This was seated on three precipitous hills or rocks about six hundred feet high connected by lines of works, and enclosing a large triangular plain. For many ages it had been regarded as the strongest military post in the Carnatic, and it had once been the stronghold of the Dravidian rulers of Chola. In 1677 it had been captured by the first Sivajee. In 1689, it was in the possession of his son Ramrajah and was the frontier fortress of the Mahrattas against the Moghuls. In 1690 Zoolfacar Khan commanded the Moghul army in the Carnatic and laid siege to Jinjee. This general, one of the most distinguished persons of his time, was not only in command of the Moghul army in Jinjee, but also exercised a powerful influence at court. On a rebellion breaking out in the Moghul army, Mr. Yale supplied Zoolfacar Khan with ammunition and rendered other services; as a reward for which he obtained a firmaun from the Moghul general, confirming the English Company in the possession of all their settlements in Golcondah territory and Jinjee territory. In 1691 the Mahrattas were still masters of Jinjee, Ramrajah controlling the whole country from Jinjee to the river Coleroon, and so firmly was his power established, that the English when requiring the site of Fort St. David had found it necessary to purchase it from him. In 1692 Zoolfacar Khan still besieged Jinjee, being accompanied by the youngest son of the Emperor Aurungzeeb, named Cambuksh. In December 1692 the Moghuls were defeated by the Mahrattas and many of the Moghul officers fled to Madras in disguise. This year a firmaun was obtained from Zoolfacar Khan, granting Egmore, Pursewaukum, and Tundoor to the Company rent-free. The villages were afterwards demanded by the Poonamallee Naick, who alleged that the Nawab had granted them to himself, and the Agency experienced some difficulty in obtaining possession. Finally however, in March 1694, permission was received from Zoolfacar Khan to take possession of these places. In January 1693 an English soldier in the service of Zoolfacar Khan returned to Madras bringing news that Cambuksh had essayed to go over to the Mahrattas, and had been seized and imprisoned by Zoolfacar Khan; and that the camp of the latter having been reduced to starvation from want of provisions, the Moghuls had retired to Wandiwash, leaving most of their baggage at the discretion of the Mahrattas. In 1696 the Mahrattas were found to be increasing their forces at Jinjee, and the settlement at Fort St. David were warned to be if possible on good terms with Ramrajah and his officers. Later in the same year, Zoolfacar Khan sent to Madras to borrow a hundred thousand pagodas, equivalent to above thirty-five thousand pounds sterling. Mr. Nathaniel Higginson, who was Governor of Madras, sent a present, but declined to lend the money; and there was some anticipation that Zoolfacar Khan would

take reprisals on the town. Eventually in 1697 Zoolfacar Khan obtained re-inforcements and defeated the Mahrattas near Tanjore, and in 1698 he captured Jinjee. This general had already himself granted firmauns confirming the English in the possession of their territorial settlements; and he now procured them corresponding firmauns from the Vizier in the Emperor's name. For this a consideration was paid of ten thousand pagodas or nearly four thousand pounds sterling.

106. AFFAIRS TO THE MIDDLE OF THE EIGHTEENTH CENTURY.—To return to matters more immediately concerning the settlement, in 1689 war had broken out between France and Holland, and in August 1690 the combined Dutch and English fleets fought an indecisive action with the French off Madras. The next year Sir John Goldesborough was sent out to Madras with authority to decide certain disputes between Mr. Elihu Yale and his Council. Directions were given to improve the revenue of Madras by increasing quit-rents, and by imposing a duty on licenses for public-houses. The town was to be extended, and a quarter was to be assigned to the Armenians. It was also ordered that the members of the Court of Aldermen should be of different castes, namely "one Armenian, "one or two Hebrews, one or two Portuguese, one or two Gentoos, and one "Moor or Mussalman." The factories at Conimere and Cuddalore were with-drawn. The military establishment at Fort St. George was also retrenched. As a result of the commission at Madras Mr. Nathaniel Higginson became Governor in 1692.

107. In August 1693 the Dutch appeared before Pondicherry with a large fleet, and captured it after a siege of twelve days. In 1694 there was a report of a French equipment of nine ships for India, and it was ordered that additional precautions should be taken at Fort St. George and Fort St. David. Meanwhile the depredations of pirates increased, and trade on the Coromandel Coast was much depressed. In 1697 a petty attack was made on the Company's factory at Anjengo on the Travancore coast. In 1684 the Company had obtained permission from the native Queen of Attingal to fortify Anjengo, but in November 1697 the same ruler sent a force to eject the English as pirates. The native force was repulsed in two engagements, without loss. About the same time Selim Khan, brother of Davood Khan hereafter to be mentioned, made two attempts upon Cuddalore, both of which were defeated. By the treaty of Ryswick in September 1697 Pondi-cherry was restored by the Dutch to France.

108. In 1698 Bengal was made independent of Fort St. George. In the same year Mr. Thomas Pitt grandfather of the celebrated Earl of Chatham succeeded Mr. Higginson as Governor of Madras. Disputes now arose between the old or London Company, the lately formed English Company, and the Scotch East India Company originally embodied by King James I in 1617. These led to depres-sion of trade, and the circumstances finally brought about an amalgamation of all traders to India, under the appellation of the 'United East India Company,' established under Queen Anne's Charter in 1702.

109. In 1701 Zoolfacar Khan was succeeded by Davood Khan as Nawab or Military Commandant of the Carnatic. The English sent this officer letters and presents. A present valued at seventeen hundred pagodas was given in public, and another of three thousand rupees was given in private. The Nawab however sent back the presents desiring to receive ten thousand pagodas as his predecessor had done, and he threatened to destroy Madras and establish St. Thomé in its place. Mr. Pitt refused to pay the money, landed men from the merchant ships, increased the train bands, and raised a force of Portuguese. Davood Khan blockaded Madras for three months, but finally received the present. In 1703 renewed attempts were made by the Naick of Poonamallee to obtain possession of the Company's outlying villages of Egmore, Pursewaukum, and Triplicane, which were frustrated by the decided action of the Government. Up to 1703, gunpowder formed one of the articles supplied from England; but about this period the manufacture of it was so much improved at Madras, as to preclude the necessity of sending any more. In 1707 occurred serious disputes between the right and left hand castes or factions, which resulted in the retirement of the former to St. Thomé, but the matter was finally arranged.

110. The administration of Mr. Pitt was distinguished by the establishment of closer relationship with the Court at Delhi. Aurungzeeb died in 1707, and the event was followed by a war between his sons. The elder son gained the victory, but being apprehensive lest his rival should find a refuge in Madras, and make his escape to Persia, he sent a letter of conciliation to Mr. Pitt by an influential official. Mr. Pitt, while making a suitable response, asked for a firmaun confirming all the privileges which had been granted by Aurungzeeb, and the request was granted.

111. Madras was at this time the most important factory possessed by the Company in India. Other factories on the Coromandel Coast were Fort St. David, Cuddalore, Masulipatam, Porto Novo, Madapollam, and Vizagapatam. On the Western Coast the Company possessed the island of Bombay, with factories at Surat, Broach, Ahmedabad, Soowauly, Anjengo, Carwar, Tellicherry, and Calicut. In Bengal they had Fort William, and Chuttanuttee or Calcutta, with factories at Patna, Maldah, Dacca, Balasore, Rajmahaul, and Cossimbazaar. The English paid their yearly rent of twelve hundred pagodas to the Nawab of the Carnatic. The Nawab was subordinate to the Nizam of the Deccan, now styled the Nizam of Hyderabad; and paid a yearly tribute to the latter. In 1738-39, the power of the Moghul King or Padishah received a severe blow from the Persian invasion under Nadir Shah, and from that date the provinces began once more to grow independent of the Court at Delhi. The Nizam of the Deccan of this period is best known by his title of Nizam-ool-Moolk, or "Regulator of the State." He had served in the armies of Aurungzeeb and had filled important posts in the Court at Delhi, had been appointed to the government of all the Moghul conquests in the Deccan, and had engaged in frequent wars against the Mahrattas of Poona to the west, and those of Berar to the northward. His dominion extended from the river Godavery southward to the river Kistna, and was bounded on the west by the Mahrattas of Poona; on the north by the Mahrattas of Berar; on the east by the Bay of Bengal. The province of the Nawab of the Carnatic lay to the south of the Nizam's dominions. It extended from the river Kistna southwards to the river Coleroon, being bounded on the north by the Nizam's territory; on the west by the Mysore country; on the south by the Hindoo kingdoms of Trichinopoly and Tanjore; on the east by the Bay of Bengal.

112. The list of Governorships down to that of Mr. Nicholas Morse in 1743 is not distinguished by any events of special interest[35 & 36].

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[35] SKETCH ACCOUNT OF THE HOME CONSTITUTION OF THE EAST INDIA COMPANY AT THE BEGINNING OF THE EIGHTEENTH CENTURY.—*Introduction.*—Queen Elizabeth's Charter of 31st December 1600, by which the East India Company was established, placed the management of its affairs under a Governor and twenty-four committee-men or Directors, to be chosen annually. The next few charters granted to the Company related almost entirely to the foreign management of its affairs, but the one conferred on them in 1693 related to their domestic arrangements. The Charter of 1698 confirmed existing arrangements. The following notes indicate roughly the home constitution of the Company down to the Regulating Act. (2) *Courts of Proprietors.*—The members of the company, who had embarked their fortunes as subscribers or share-holders, to the amount of £500 and upwards, were called 'Proprietors of the Company's stock.' The general meetings of the entire body were therefore called 'Courts of Proprietors.' They nominally governed themselves and their affairs, by delegating their powers of management to a chairman and body of directors, whom they chose annually from among their own number. The meetings of the Courts of Proprietors took place four times a year, namely, in the months of December, March, June, and September. Proprietors of £500 stock were permitted to be present, but had no vote in the courts. £1,000 conferred one vote; £3,000, two; £6,000, three; and £10,000 and upwards, four. (3) *Courts of Directors.*—The active agents of the Company's home and Indian Government were the Directors. These were twenty-four in number, elected annually; the qualification for office being the possession of above £2,000 of the Company's stock. They could only be dismissed 'by the proceedings of two general Courts of Proprietors, at the first of which the grounds for the motion of removal are to be brought forward; and at the second, the question is to be decided by the votes of the proprietors then present.' A chairman and deputy chairman, with salaries of £500 a year, were elected by the Directors annually, to preside over their meetings; each Director receiving £300. (4) *Committees.*—The business of the Company was carried on by means of various committees chosen from the body of Directors, the chairman and deputy chairman being ex-officio members of all. The Committee of Correspondence had by far the most extensive business. All the advices from India of any kind passed through its hands daily. It kept the lists of the Company's servants; and settled all disputes and alleged grievances amongst the civil and military officers in the employ of the Company. The recruiting department, and the naval stations for ships, were also under their control. The Committee of Law Suits took cognizance of legal matters whether at home or abroad. The Treasury Committee was for the purpose of dealing with questions of coin, bonds, and loans. The Committee of Buying and Warehouses was for the management and supervision of commercial concerns, exports and imports, arranging orders abroad, and stocking goods sent home, paying overseers, testers, and other officials, and in general carrying on the home trade of the Company. The Committee of Accounts had an 'Accountant's office,' and a 'Transfer office,' under its direction, for the purpose of conducting the business of the Company in bills of exchange, &c. The Committee of Shipping purchased ships and stores, fitted out trading vessels and paid the wages of the seamen and their officers. The Committee of Private Trade prepared the charter-parties and regulated the freight of private owners embarked in the Company's ships. It also maintained the bye-laws, in connection with this private trade. There were also committees for the management of Government troops and stores during time of war, and for the prevention of private trade. (5) *Method of Commerce.*—The principal exports of the Company to India consisted of bullion, lead, quicksilver, hardware, and cloths. The imports were calicoes, silk, precious stones, tea, rice, pepper,

113. THE FRENCH IN INDIA.—The first establishment of the French in India dates as far back as 1668. From 1503 to that period, various attempts had been made to obtain for France the commerce of this part of the world, but without success. The French first adventured to India in 1601, when two ships were fitted out from St. Maloes, under the command of Lieutenant Bardelieu. They were both lost off the Maldives before reaching their destination. In 1604 Henry IV incorporated the first French East India Company with a Charter for fifteen years. Colbert did not however allow himself to be discouraged by the fruitless results of efforts prolonged for more than a century and a half. In 1664 he re-established on a better and more extensive basis the East India Company which Cardinal Richelieu had created twenty-two years before. The monopoly of the trade for fifty years was accorded to this Company, which soon collected funds to the amount of 15 millions of francs. In the commencement it displayed great activity. Two successive expeditions were undertaken for the purpose of renewing the attempts at colonization before made in Madagascar; but these expeditions having failed, the

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porcelain, saltpetre, &c. All sales were conducted by auction at the Company's warehouses. The ships used for freight were mostly chartered by the Company for each voyage, their own ships being only used for carrying passengers, mails, and despatches.

[36] SKETCH OF THE SEQUEL TO THE CONSTITUTIONAL HISTORY OF THE ENGLISH GOVERNMENT IN INDIA.—*Introduction.*—The following summary is taken from a recent Parliamentary publication. (2) *The Regulating Act*, 1772-73.—The Act of 1772-73, known as the Regulating Act (13 Geo. 3, c. 63), reconstituted the Council of Bengal, changed the style from Governor to Governor-General, and subjected the other two Presidencies to Bengal so far as regards the declaration of war or the conclusion of peace. The first Governor-General (Warren Hastings) and his council of four members (of whom Philip Francis was one) were named in the Act; thereafter they were to be appointed by the Court of Directors. The power of making "rules, ordinances, and regulations" was conferred upon the Governor-General and Council. A Supreme Court of Judicature, composed of a chief and four puisnes nominated by the Crown, was established for Bengal. The Court of Directors was required to communicate to the Treasury all despatches from India relating to revenue, and to a Secretary of State all despatches relating to public affairs. (3) *Pitt's Indian Act*, 1784.—This first interference of Parliament in the Government of India was due to Lord North. The second is associated with the greater names of Fox and Pitt. In 1783, Fox on behalf of the Ministry introduced a Bill which in substance transferred the authority belonging to the Court of Directors to a new body, named in the Bill for a term of four years, who were afterwards to be appointed by the Crown. This Bill passed the House of Commons by a majority of two to one, but was rejected by the House of Lords. The King, who was known to disapprove the Bill, forthwith dismissed Fox from office and summoned Pitt to be First Lord of the Treasury. In the following year (1784), after a dissolution, Pitt carried through Parliament his own India Act (24 Geo. 3, c. 25). Its effect was twofold. First, it constituted a department of State in England, under the official style of "Commissioners for the Affairs of India," whose special function was to "control" the policy of the Court of Directors. Second, it reduced the number of members of council at Bengal to three, of whom the Commander-in-Chief must be one; and it remodelled the councils at Madras and Bombay on the pattern of that at Bengal. (4) *The Board of Control.*—The "Commissioners for the Affairs of India" were directed to form themselves into a Board which, as finally modified by a subsequent Act (33 Geo. 3, c. 52), consisted of five members of the Privy Council, of whom the two Secretaries of State and the Chancellor of the Exchequer must be three. But it was never intended that these high officers should take an active part, and therefore the first commissioner named in the letters patent was appointed President of the Board, and a casting vote was given to him in matters of difference, which practically made him supreme. Thus arose the popular title of "President of the Board of Control." The first President was Henry Dundas (afterwards Lord Melville), the friend of Pitt, who held the office from 1784 to 1801. One of his earliest acts was to pass a Statute (26 Geo. 3, c. 16) by which authority was for the first time given to the Governor-General to overrule the majority of his council in certain cases. This matter, however, was dealt with more thoroughly in the Act of Parliament which has now to be described. (5) *The Secret Committee*, 1793.—In 1793, the question of continuing to the East India Company their right of exclusive trade in the East came under the consideration of Parliament. The monopoly was renewed for a further term of twenty years; and advantage was taken of the opportunity to codify, as it were, the constitution of the Indian Government. By this Act (33 Geo. 3, c. 52) the Board of Control was modified as mentioned above, and the Court of Directors were required to appoint a "Secret Committee" of three of their own number, through whom the Board of Control was to issue its instructions to the Governors in India regarding questions of peace or war. The Councils at Bengal, Madras, and Bombay were remodelled. Each was to consist of three members, appointed by the Court of Directors, from among "senior merchants" (i.e., civil servants) of ten years' standing; and the Directors were empowered to appoint the Commander-in-Chief of each Presidency as an additional member. The appointment of the three Governors and the Commanders-in-Chief was vested in the Court of Directors, subject to the approval of the Crown. The Directors also retained their power of dismissing any of these officials. The Governor-General was empowered to override the majority of his council "in cases of high importance and essentially affecting the public interest and welfare," or (as it is elsewhere worded) "when any measure shall be proposed whereby the interests of the Company or the safety and tranquillity of the British possessions in India may, in the judgment of the Governor-General, be essentially concerned." A similar power was conferred upon the Governors of Madras and Bombay. The Governor-General was authorized to "superintend" the subordinate Presidencies "in all such points as shall relate to negotiations with the country powers, or levying war or making peace, or the collection or application of the revenues, or the forces employed, or the civil or military government." The form of procedure in council was regulated; and it was enacted that all orders, &c., should be expressed and be made "by the Governor-General [or Governor] in Council," a style that has continued to the present day. The Governor in Council at Madras first received legislative powers in 1800 by an Act (39 & 40 Geo. 3, c. 79) which also founded a Supreme Court of Judicature at Madras on the Bengal pattern, with judges appointed by the Crown. Bombay did not obtain legislative powers until 1807, nor a Supreme Court until 1823. (6) *The Renewal in* 1813.—In 1813 the territorial authority of the East India Company, and its monopoly of trade with China, were again renewed for twenty years; but the right of trade in India was thrown open to all British subjects. (7) *The Renewal in* 1833.—When the time came round for renewing the powers of the Company in 1833 for another twenty years, far more extensive changes were carried into effect. By the Act then passed (3 & 4 Will. 4, c. 85), the monopoly of trade with China was withdrawn, and the Company (now for the first time officially styled "the East India Company") ceased altogether to be a mercantile corporation. At the same time, the Island of St. Helena was vested in the Crown. It was also enacted that no official communications should be sent to India by the Court of Directors until they had first been approved by the Board of Control. The Governor-General received the title of "Governor-General of India." His council was augmented by a fourth or extraordinary member, who was not entitled to sit or vote except at meetings for making laws and regulations. He was to be appointed by the Directors, subject to the approval of the Crown, from among persons not servants of the Company. The first such member was Thomas Babington Macaulay, afterwards Lord Macaulay. The Governor-General in

Company renounced the projects which they had formed for Madagascar, and a direct commerce with India was again undertaken and continued with spirit. In 1668 a merchant of French origin named Caron, an active and well experienced man, became chief of the East India Company. He first selected Surat, but this town, though flourishing and well situated, did not realize the idea which he had formed for the chief establishment in India. He was desirous of having a port in a place where spices grew; and the Bay of Trincomalee in the island of Ceylon appearing to him the most eligible spot, he took it from the Dutch, then at war with France. These however were not long in repossessing themselves of it, and Caron then passed to the Coromandel Coast. He there took in 1672 St. Thomé, which had been in the possession of the Dutch for twelve years; but in 1674 the Dutch again compelled the French to restore this conquest to them. This event would have effected the ruin of the Company, whose affairs had been for some time in a distressed condition, if one of its agents named François Martin had not collected the wrecks of the colonies of Ceylon and St. Thomé, composed of 60

Council was empowered to make "Laws and regulations" for the whole of India, and legislative functions were withdrawn from Madras and Bombay. A law commission was appointed, to which we owe the Penal Code. A new Presidency was created, with its seat at Agra; but this clause was suspended two years later by an Act (5 & 6 Will. IV, c. 52) which authorized the appointment of a "Lieutenant Governor of the North-Western Provinces." At the same time the Governor-General was authorized to appoint a member of his council to be Deputy Governor of Bengal. By a special clause, it was for the first time enacted that "no native of India shall, by reason of his religion, place of birth, descent, or colour, be disabled from holding any office under the Company." (8) *The Renewal in* 1853.—In 1853, the powers of the East India Company were again renewed, but "only until Parliament shall otherwise provide." Further important changes were effected by the Act passed on this occasion (16 & 17 Vic., c. 95). Six members of the Court of Directors, out of a total of eighteen, were henceforth to be appointed by the Crown. The appointment of ordinary members of council in India, though still made by the Directors, was to be subject to the approval of the Crown. The Commander-in-Chief of the Queen's army in India was declared Commander-in-Chief of the Company's forces. The Council of the Governor-General was again remodelled by the admission of the fourth member as an ordinary member for all purposes; while special members were added for the object of legislation only, namely, one member from each Presidency or Lieutenant Governorship, the Chief Justice of Bengal and a Puisne Judge of the Supreme Court. The Lower Provinces of Bengal were constituted a Lieutenant Governorship. The law commission was appointed in England to consider the reforms proposed by the Indian Law Commissioners. Finally, admission to the civil service, the army, and the medical service was thrown open to public competition. (9) *The Act for the better Government of India*, 1858.—The mutiny of 1857 caused the downfall of the East India Company after a history of more than two-and-a-half centuries. The "Act for the better Government of India" (21 & 22 Vic., c. 106) enacted that henceforth "India shall be governed by and in the name of" the Queen, and vested in the Queen all the territories and powers of the Company. A Secretary of State was appointed, with a council, to transact the affairs of India in England. (10) *The Royal Proclamation.*—The "Act for the better Government of India" received the Royal Assent on 2nd August 1858, and came into operation thirty days later. Its effect, so far as regards the assumption of the Government by the Crown, was announced to the princes and people of India by a royal proclamation, which was published at every large town throughout the country and translated into the vernacular languages. In this historic proclamation the Governor-General (Lord Canning) was for the first time styled Viceroy. Despite the transfer of authority from the Company to the Crown, the constitution of the Government remained unaltered until 1861. In that year was passed "the Indian Councils Act" (24 & 25 Vic., c. 67), which, as modified by two subsequent Acts (33 Vic., c. 3, and 37 & 38 Vic., c. 91), provides for the constitution of the councils in India, ordinary and legislative. (11) *The Empress of India*, 1876.—In 1876, the transfer of the Government from the Company to the Crown, which had been effected eighteen years earlier, was further recognized by an Act of Parliament (39 Vic., c. 10), which empowered the Queen to make a significant addition to Her style and title. This statute received the Royal Assent on the 27th April 1876. On the next day a royal proclamation was issued at Windsor announcing that the Queen had assumed the title of "Empress of India." To celebrate the event, Lord Lytton, as Viceroy, held an imperial assemblage at Delhi of the heads of the administration and of the native princes and chiefs on the 1st January 1877, when the royal proclamation was read with great pomp and ceremony. The proclamation was also read on the same day at the head-quarters station of every district throughout India; and the occasion was celebrated by bounties to the army and by the liberation of well-conducted prisoners. (12) *Acts of Parliament relating to the constitution.*—A catalogue is appended of all the Acts of Parliament relating to the constitution of the Indian Government, with a summary of their titles:—13 Geo. III, c. 63 (1772-3). "For establishing certain Regulations for the better Management of the Affairs of the East India Company, as well in India as in Europe." Known as the Regulating Act. 21 Geo. III, c. 70 (1780-1). "To explain and amend so much of the last Act as relates to the administration of Justice in Bengal." 24 Geo. III, Sess. 2, c. 25 (1784). "For the better Regulation and Management of the Affairs of the East India Company and of the British Possessions in India." 26 Geo. III, c. 16 (1786). "To explain and amend certain Provisions of the last Act." 33 Geo. III, c. 52 (1792-3). "For continuing in the East India Company for a further Term the possession of the British Territories in India, under certain Limitations; for establishing further Regulations for the Government of the said Territories, and the better Administration of Justice, &c." 37 Geo. III, c. 142 (1796-97). "For the better Administration of Justice at Calcutta, Madras, and Bombay." 39 & 40 Geo. III, c. 79 (1799-1800). "For establishing further Regulations for the Government of the British Territories in India, and the better Administration of Justice." 53 Geo. III, c. 155 (1812-13). "For continuing in the East India Company for a further Term the possession of the British Territories in India; for establishing further Regulations for the Government of the said Territories, and the better Administration of Justice, &c." 4 Geo. IV, c. 71 (1823). "For establishing a Court of Judicature at Bombay." 10 Geo. IV, c. 62 (1829). "To exclude Persons accepting Office in the East Indies from being Members of the House of Commons." 1 Will. IV, c. 4 (1830-31). "To provide for the longer Duration of the Patents of Governors after the Demise of the Crown." 3 and 4 Will. IV, c. 85 (1833). "For effecting an Arrangement with the East India Company, and for better Government of His Majesty's Indian Territories." 3 and 4 Will. IV (1835). "To authorise the Court of Directors to suspend the Provisions of the last Act, so far as they relate to the Creation of the Government of Agra." 16 and 17 Vic., c. 95 (1853). "To provide for the Government of India." 17 and 18 Vic., c. 77 (1854). "For vesting certain Powers in the Governor-General of India in Council." 21 and 22 Vic., c. 106 (1858). "For the better Government of India." 22 and 23 Vic., c. 41 (1859). "To amend the Act for the better Government of India." 24 and 25 Vic., c. 54 (1861). "To confirm certain Appointments in India, and to amend the Law concerning the Civil Service." 24 and 25 Vic., c. 67 (1861). The Indian Councils Act. 32 and 33 Vic., c. 97 (1869). "To amend in certain respects the Act for the better Government of India." 32 and 33 Vic., c. 98 (1869). "To define the Powers of the Governor-General of India in Council at Meetings for making Laws and Regulations." 33 Vic., c. 3 (1870). "To make better Provision for making Laws and Regulations for certain Parts of India, and for other purposes." 37 and 38 Vic., c. 91 (1874). "To amend the Law relating to the Council of the Governor-General." 39 Vic., c. 7 (1876). "To amend the Law relating to certain Appointments to the Council of India." 39 Vic., c. 10 (1876). "To enable Her Most Gracious Majesty to make an addition to the Royal Style and Titles."

Frenchmen, to people the small town of Pondicherry; which as well as the surrounding territory he had purchased in 1674 with the funds of the Company from the Governor of Jinjee, then superintending all Sivajee's conquests in the Carnatic. The country was however nominally subject to the Deccany king of Beejapore. Martin fortified Pondicherry, and by his superior administration the small colony prospered and soon gave the best hopes of success. The Dutch attacked it in 1693; Martin, after defending himself there with great courage, was compelled to capitulate, and on the 5th September 1693, the town was given up. By the treaty of Ryswick, Pondicherry was restored to the French in 1697, who received it from the hands of the Dutch in a much better state than when they yielded it to them. In 1699 this town became the capital of the French possessions in India. The able administration of Martin succeeded in making it the centre of a rich commerce, and one of the most important towns which Europeans possessed in Asia. A number of Frenchmen soon spread themselves on the Indian continent and formed new factories. Chundernagore in Bengal was ceded by Aurungzeeb to the French East India Company in 1688. In 1727 this Company obtained the cession of Mahé. In 1739 it purchased Caricaul from the king of Tanjore. And in 1752 Yanam and Masulipatam, which the French had two years before seized, were definitely ceded to them. The Governors-General of the French establishment in India, Messieurs Dumas and Dupleix, contributed greatly from 1735 to 1754 to the prosperity of these possessions. Amongst other advantageous concessions, M. Dumas obtained from the Great Moghul the privilege of coining money at Pondicherry, which gave to the Company a yearly income of about 500,000 livres, or £20,000. M. Dupleix, appointed in 1730 Governor of Chundernagore, succeeded in less than twelve years in making that place one of great commercial importance. The town of Pondicherry, the government of which was confided to the same officer in 1742, together with that of the other establishments, was equally indebted to him. It was under his government that the French possessions and power in the East Indies attained their highest growth.

114. WARS BETWEEN THE FRENCH AND ENGLISH.—Meanwhile and until the end of the first half of the eighteenth century the English had carried on their trading operations tolerably unmolested in the midst of the continual wars between the Mussalman and Mahratta conquerors of the old southern Hindoo powers. The affairs of the French and English between the breaking out of the first war in 1744 and the final overthrow of Lally at Pondicherry by Coote in 1761, sixteen memorable years for both parties, will be found detailed in a foot-note in the next article. The European war broke out in 1744. Before that however, indeed as early as 1741, the French ministry sent an armament to India under M. Labourdonnais, who, already distinguished by his talents and by his successful government of Bourbon and the Mauritius, was also intimately acquainted with the politics and resources of India. He was to watch the progress of events in Europe, and be ready to act against the English in case war should be declared. These preparations were known to the English ministry, who in order to check them sent a squadron of four ships to India under Commodore Barnet. That officer for some time cruised successfully in the Straits of Sunda, and after the declaration of war proceeded to the Coromandel Coast. The French Governor at Pondicherry was then M. Dupleix, the English Governor at Madras was Mr. Nicholas Morse. The English troops in the Presidency numbered only 600. On the 4th September Labourdonnais attacked Madras. On the 10th it capitulated[37], and the generosity

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[37] ACCOUNT OF THE FIRST SIEGE OF MADRAS BY THE FRENCH IN 1746.—The following account of the condition of Madras in 1746 and the siege of that year is taken from Orme's "History of the Military Transactions of the British Nation in Hindostan;" London, 1803. The town consisted of three divisions; that to the south extended about 400 yards in length from north to south, and about 100 yards in breadth; none but the English or other Europeans under their protection resided in this division, which contained about 50 good houses, an English and a Roman Catholic church, together with the residence of the factors, and other buildings belonging to the company; it was surrounded with a slender wall, defended with four bastions and as many batteries, but these were very slight and defective in their construction, nor had they any outworks to defend them; this quarter has long been known in Europe by the name of Fort St. George and was in India called for distinction the White Town. On the north of this, and contiguous, was another division, much larger and worse fortified, in which were many very good habitations belonging to the Armenian and to the richest of the Indian merchants, who resided in the company's territory; this quarter was called the Black Town. Beyond this division, and to the north of it, was a suburb, where the Indian natives of all ranks had their habitation promiscuously. Besides these three divisions, which composed the town of Madras, there were two large and populous villages about a mile to the southward of it, within the company's territory, and these were likewise inhabited by Indian natives. There were 250,000 inhabitants in the company's territory, of whom the greatest part were natives of India, of various castes and religions; amongst these were three or four thousand of those Indian Christians who call themselves Portu-


MAP
of Peninsular India
illustrating the British
Military period of History
Scale 1/186½ Inch to the Mile
or 1/11827200 of nature
186 Miles
75°
85°
30
20
10
Saugor
Oojein
Bhopaul
Oodayapore
Indore
Baroda
Surat
CANDEISH
Ellichpore
Nagpore
Akola
Nassick
Dowlatabad
Aurungabad
Chanda
Calyan
BOMBAY
Amednuggur
Nundair
Poona
Sattara
Rutnagherry
Bedar
Warangal
Golcondah
Hyderabad
Beejapore
Ryechore
Condapilly
Ellore
Vingorla
Goa
Kurnool
Masulipatam
Vijanuggen
Gooty
Savanoor
Cuddapah
Nellore
Chitaldroog
Coondapore
Poolicat I.
Poolicat
MYSORE
Mangalore
Bangalore
Seringapatam
Arcot
Vellore
Amboor
MADRAS & Fort St. George
Thome or Meliapore
PONDICHERRY
Fort St. David
Cuddalore
Mahe
Tellicherry
Trichinopoly
Tanjore
Negapatam
Caricall
Devicottah
Coleroon R.
Cauvery R.
Ponnany R.
Ponnany
COCHIN
Periyaur R.
Cochin
Madura
Veigay R.
Tinnevelly
C. Comorin
Trincomalee
CEYLON
BENGAL
Burdwan
Chandernagore
CALCUTTA
Chyebassa
Oodeypore
Sumbulpore
Mahanuddy R.
Cuttack
Hooghly R.
Royagooda
Jeypore
Chilka L.
Ganjam
Berhampore
Chicacole
Vizianagram
Vizagapatam
Coringa
Yanam
Godavery R.
Kistna R.
NORTHERN CIRCARS
BAY OF BENGAL
Pennair R.
Palaur R.
Ponnaiar R.

of Labourdonnais not being equalled by that of Dupleix, the English Governor and merchants were sent as prisoners to Pondicherry. Mr. Charles Floyer at Cuddalore assumed charge of the English settlements. Cuddalore itself was twice attacked by the French, and twice escaped. In 1747 reinforcements having arrived from England, the English in turn besieged Pondicherry, with Admiral Boscawen on sea and Major Stringer Lawrence on land. Ensign Clive distinguished himself at this siege, which however was raised. The peace of Aix-la-Chapelle took place in 1748, and the arrangements consequent on it reached India at the end of 1749, when Madras was restored to the English. The French, during the four years they occupied it, had considerably improved the fort, by enlarging and strengthening the bastions and batteries. They had also demolished that part of Black Town immediately adjoining the north wall of the fort, and formed an excellent glacis. Another glacis had also been cleared to the south. The defences however were considered far less strong than those at Fort St. David.

115. The European war being thus ended, the forces of the two powers were under the necessity of finding occupation and profit in the various wars between the native princes. It usually happened that their sympathies or their interests were enlisted on opposite sides. The campaigns of the Nawabs Zoolfacar Khan and Davood Khan in the Carnatic, during the reign of Aurungzeeb, have been already noticed. On leaving the Carnatic under orders from the Emperor the latter had appointed Saudat Oollah as his deputy, who governed the provinces from 1710 to his death in 1732 with much moderation and ability. On his demise his nephew Dost Ally Khan assumed the government of the Carnatic, as it were independently; for it does not appear that the Emperor of Delhi the nominal superior, or Nizam ool Moolk of Hyderabad the real superior, were consulted at all. Dost Ally had one son, Sufder Ally; and had married two daughters, one to Moortezah

guese, and pretend to be descended from that nation. The English in the colony did not exceed the number of 300 men and 200 of these were the soldiers of the garrison; but none of them excepting two or three of their officers had ever seen any other service than that of the parade; the rest of the English inhabitants, solely employed in the occupations of commerce, were still more unfit for military services. On the 8th September 1746 the French had finished a battery of five mortars to the south and bombarded the town without intermission until the next morning, when two English deputies went to their camp to treat with M. deLabourdonnais, who insisted that the town should be delivered up to him on his own terms; and threatened in case of refusal to make a general assault. As soon as the deputies returned, the bombardment recommenced and continued until the evening, when it was suspended for two hours during the conference of another deputy sent from the town; after which it continued during the rest of the night. The next morning, the 10th September, the deputies returned to the French camp, and, after some altercations, consented to the articles of capitulation, which had been dictated to them in the first conference. It was agreed that the English should surrender themselves prisoners of war; that the town should be immediately delivered up; but that it should be afterwards ransomed. M. deLabourdonnais gave his promise that he would settle the ransom on easy and moderate terms. The capitulation was signed in the afternoon, when M. de Labourdonnais, at the head of a large body of troops, marched to the gates, where he received the keys from the Governor. There was not a man killed in the French camp during the siege; four or five Englishmen were killed in the town by the explosion of the bombs, which likewise destroyed two or three houses. All the merchandise and a part of the military stores belonging to the East India Company, together with all the naval stores found in the town, had been laden on board of the French ships; these articles, according to the computation made by the French, amounted to £130,000 sterling, and the gold and silver of which they took possession to the value of £31,000 sterling; the half of the artillery and military stores was estimated at £24,000 sterling; all the other effects and merchandise were relinquished to the proprietors of them. It was agreed that the French should evacuate the town before the end of the ensuing January, after which the English were to remain in possession of it, without being attacked by them again during the war. Upon these conditions the Governor and Council of Madras agreed to pay the sum of 1,100,000 pagodas, or £440,000 sterling. M. Dupleix, on the departure of M. deLabourdonnais, had appointed one Paradis, a Swiss, to be Governor of Madras, but in a short time the French inhabitants of Pondicherry, instructed by M. Dupleix's emissaries, assembled and drew up a representation, addressed to M. Dupleix and the Council, in which they set forth the necessity, as they pretended, of annulling the treaty of ransom. M. Dupleix and the Council of Pondicherry, affecting to respect the general voice of the inhabitants, which they had suborned, instructed Paradis to execute this resolution. On the 30th of October, the inhabitants of Madras were called together; the French garrison was drawn up under arms, and a manifesto addressed to the English was publicly read. This paper contained the following declaration and injunctions. The treaty of ransom made with M. deLabourdonnais was declared null. The English were enjoined to deliver up the keys of all magazines without exception; all merchandise, plate, provisions, warlike stores, and horses were declared the property of the French Company; but the English were permitted to dispose of their movables, clothes, and the jewels of the women: they were required to give their parole, not to act against the French nation until they should be exchanged; and it was declared that those who refused to obey this injunction should be arrested and sent to Pondicherry. All excepting such as were willing to take the oath of allegiance to the French king were ordered to quit the town in four days, and were prohibited from taking up their residence within the bounds of Madras, or in any of the country houses belonging to the English without those bounds. Such injurious and distressful terms aggravated the iniquity of that breach of public faith which produced them. The French put their manifesto into execution with the utmost rigor, and took possession of the effects of the English with an avaricious exactitude rarely practised by those who suddenly acquire valuable booties; the fortunes of most of the English inhabitants were ruined. The Governor and several of the principal inhabitants were conducted by an escort of 400 men to Pondicherry: here M. Dupleix, under pretence of doing them honour, caused them to enter the town in an ostentatious procession, which exposed them to the view of 50,000 spectators like prisoners led in triumph. Others of the inhabitants, with several of the military officers, resolved not to give their parole, alleging very justly that the breach of the treaty of ransom released them from that which they had given to M. deLabourdonnais; and these made their escape out of the town by night, and, travelling through the country by various roads, went to the English settlement of Fort St. David, which then became the seat of the Presidency, and so continued till 1752.

Ally Khan, the other to Chunda Sahib. At this juncture the Mahrattas under Raghojee Bhonslay invaded the Carnatic, and in an action with them Dost Ally was killed. Sufder Ally now made terms with Raghojee, and, on condition of the payment of one hundred lakhs of rupees was recognised as Nawab of the Carnatic. But meanwhile Sufder's brother-in-law Chunda Sahib, on pretext of assisting the widowed Ranee, had obtained possession of Trichinopoly; and Sufder was too weak to attack him. Raghojee therefore returned to the Carnatic after his visit to Sattaura in 1741 and besieged Trichinopoly, when Chunda Sahib was obliged to capitulate, and as a measure of safety was sent to Sattaura. During these transactions however Chunda Sahib had placed his wife and family in the French settlement of Pondicherry, under the charge of M. Dupleix the governor; and this act led subsequently to strange and important events. In a year after his assumption of the government, Sufder Ally was assassinated by his second brother-in-law Moortezah Ally, who was proclaimed Nawab; but the family of Sufder Ally had obtained protection in the English factory of Madras, and his son, a minor, was also proclaimed as successor to his father. To put an end to these convulsions Nizam ool Moolk marched from Hyderabad in 1743 at the head of an overwhelming force, and setting aside the claims of the pretenders Chunda Sahib and Moortezah Ally appointed one Anwar ood deen to the government of the province during the minority of the son of Sufder Ally. The young Nawab was however assassinated a few years later, and Anwar ood deen became Nawab of the Carnatic, and was thus the founder of the family which still exists. These remarks will explain the relations which existed between Anwar ood deen and Chunda Sahib. The former had attached himself to the English, the latter to the French. The former though short-lived transmitted his attachment for the English to his son Mahomed Ally. The last-named ruler was indeed called "the Company's Nawab." Again when Nizam ool Moolk died in 1748, he was succeeded by his son Nazir Jung; but the title was disputed by Moozuffer Jung, the son of a deceased elder brother of Nazir Jung. In this also the direct claimant looked to the English, and his opponent looked to the French. The Mahrattas at this time still held supreme power in Tanjore and the adjacent country. The English first in 1749 assisted a claimant to the Mahratta throne of Tanjore, against a relative and were rewarded by the cession of the town of Devacottah. Then in the same year the French took up the cause of Chunda Sahib, in alliance with Mozuffer Jung; the double aim being to secure for these claimants the Nawabships of Arcot and the Soobahdarry of Hyderabad. Opposed to them were Anwar ood deen, the then Nawab; and Nazir Jung, the then Nizam, who had just succeeded. Moozuffer Jung succeeded in securing the throne of the Nizam, and the triumph of the French under Dupleix was wholly complete until Clive appeared upon the scene and to a large extent changed the course of the war. Clive seized Arcot, the capital of the Carnatic, on the 30th August 1751; while Chunda Sahib and the French were besieging Mahomed Ally, the son of Anwar ood deen recently killed in action in Trichinopoly. Clive himself was besieged in turn; but repulsed all attacks and followed up his success by the victory of Arnee, which virtually placed the Carnatic once more under the ally of the English, Mahomed Ally; although the siege of Trichinopoly was not formally raised until the French detachment, which had retreated to Shreerungam, surrendered to him and Major Lawrence in June 1752. Chunda Sahib was eventually assassinated by a Mahratta, probably at the instigation of Mahomed Ally. Moozuffer Jung retained the Nizamship, under French protection, for a brief while; and dying in action when engaged with some feudatories, was succeeded by Salaubut Jung, a son of Nizam ool Moolk, also placed on the throne by the French.

116. A quarrel next broke out between Mahomed Ally and Nanjaraj, the minister of the Rajah of Mysore. The assistance of the latter in the recent war had been procured by the Nawab by means of a promise to cede Trichinopoly if he were victorious, but when he had attained the object of his wishes he declined to fulfil his agreement. Nanjaraj then had recourse to force, and though the English at first hesitated to assist the Nawab under such circumstances the conduct of Nanjaraj in other matters left them no alternative but to treat him as an enemy. The French supported the Mysoreans; and a succession of engagements took place, chiefly in the immediate vicinity of Trichinopoly, in which the English were almost

uniformly successful. The recall of Dupleix on the 14th October 1754 led to a cessation of hostilities, but the English continued to aid Nawab of the Carnatic in the internal management of his dominions; the Nizam Salaubut Jung receiving similar assistance from the French under M. Bussy.

117. The theatre of action was then for some time transferred to Bengal, where Clive took command of the English army; but hostilities recommenced in Southern India in 1757 as soon as it was known that war had again broken out in Europe between the French and English. The French took advantage of the English forces being dispersed in various expeditions, and made an unsuccessful attack on Trichinopoly; while another detachment succeeded in gaining possession of Vizagapatam. In 1758 a French fleet appeared off Fort St. David, and that fort fell on the 2nd June. Devacottah was next reduced, and the French commander Count de Lally made a triumphal entry into Pondicherry. But here his success ended for the time, and an expedition against Tanjore resulted in complete failure. In December however he again besieged Madras itself. On the 9th December Colonel Lawrence who commanded the English withdrew all his outposts to "Choultry Plain," and on the 12th into the Fort. The attempts made by the English forces in the interior, to assist Madras during this siege, were ineffectual. In fact almost all the English troops were in the Fort. Captain Preston however with Mahomed Yoosuf a Mahomedan partizan of the British, made an attack on the French quarters at St. Thomé in January. Owing to the cowardice of the division under Mahomed Yoosuf, though he personally made great exertions, this failed, and Preston fell back on Arcot to raise fresh levies. Major Calliaud also came up in February with a detachment from the south, accompanied by several of the Nawab's troops; and on the 7th a sharp engagement took place at the Mount, the French having unsuccessfully attacked Calliaud's position. Calliaud however was obliged to fall back on Chingleput. This siege was raised two months afterwards when an English fleet appeared in the roads [38]. In the

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[38] ACCOUNT OF THE SECOND SIEGE OF MADRAS BY THE FRENCH IN 1758.—In the year 1758 the troops in the fort were 1,758 men of the European force (including officers, 64 "Topasses" or Portuguese gunners, and 89 "Caffres,") and 2,220 sepoys. The non-military inhabitants were 150, and they were appropriated without distinction to serve out stores and provisions for the garrison. The native boatmen had been retained by special encouragement, and their huts and boats were considered safe under the sea-wall. The Nawab Mahomed Ally, alias Wallajah also took refuge in the fort; but on the 20th of February, he found his way by sea to Negapatam. On the 15th December 1758, the day after the French troops occupied the suburbs of the fort and Black Town, a daring midnight sally was made by Colonel Draper (well known by his controversy with Junius) and 500 picked men. He advanced on the quarters of the regiment of Lorraine, which were near the present site of Patcheappah's Hall, and threw them into confusion, but failed to effect his object through the carelessness and timidity of his drummers, who created an alarm when they ought to have been silent, and who were not to be found when it was necessary to beat a retreat. The regiment of Lally was quartered near the beach (about where the office of Parry and Co. is now) and came to the rescue, on which Draper fought his way back into the fort. Several of his officers were killed, among whom was Major Polier, who had surrendered Fort St. David, and who sought death on this occasion. Out of the 500 men, 103 were left prisoners, 50 were killed, and 50 came in wounded. In this sally Count D'Estaign was taken prisoner by the French. Lally then engaged in his siege operations, and on the 2nd of January 1759, the Lorraine battery of 12 guns opened 500 yards north-west of the N.W. angle of the fort—and soon after Lally's battery (15 guns, being 24's and 18's) which was between the present Light-house and the sea, or a little more north. It was chiefly from this point that the approaches were made. There was also a battery of 4 guns subsequently raised 500 yards N.W. of the fort, on what was then the burying-ground (close to the obelisk or monument, where three youths were killed by lightning in 1853). There was also during the siege, a battery of 4 guns, a little to the east of where the General Hospital now stands. It enfiladed the north face of the fort. The French also occupied the important position of St. Thomé, but they did not attempt much against the south or S.W. of the fort; two 18-pounders only being brought to bear upon it from the bar near what is now the Marine Villa. On the 12th January a second sally was made by 200 Europeans and 400 sepoys, under Major Brereton, against a breastwork to the southward, which was annoying the natives and cattle sheltered under the sea-wall. Two guns were captured on this occasion. By the 22nd of January, the 4th zigzag from Lally's battery had been worked up close up to the north-east wall of the fort, but further progress was strongly and successfully disputed. Thus the siege continued, slackened at intervals on the besiegers' side for want of ammunition. A few men on both sides were killed almost every day, and guns dismantled. On the 8th February, the French engineers reported a practicable breach on the salient angle of the demi-bastion at the N.E. of the fort; but the point was so well defended, no attack was attempted. About this time information was received that Admiral Pocock's fleet was coming to the rescue from Bombay, and every effort was made by the French. On the 16th, six ships of the fleet made their appearance, and on the 17th of February 1859, the French were in full retreat, leaving behind them 52 pieces of cannon and a quantity of military stores. Forty-four sick Europeans were also left in their hospital. The fort fired during the siege 26,554 rounds from their cannon, 7,502 shells from their mortars, and threw 1,990 hand-grenades; the musketry expended 200,000 cartridges. In these services were used 1,768 barrels of gunpowder, thirty pieces of cannon, and five mortars had been dismounted on the works. There remained in the fort artillery sufficient for another siege, with 30,767 cannon balls, but only 481 shells and 668 barrels of gunpowder, as many of the enemy's cannon balls were gathered in their works, or about the defences of the fort, or found in wells and tanks in the Black Town, as the garrison had expended. The enemy consumed all the shells in the stores of Pondicherry, and threw of all sorts 8,000, of which by far the greatest number were directed against the buildings, all of which lay together: and scarce a house remained that was not opened to the heavens. Of the European officers, one major, two captains, six lieutenants, and four ensigns were killed; one captain and one lieutenant died of sickness; 14 other officers were wounded, of whom some dangerously; and four were taken prisoners; in all 33. Of the Europeans 198 were killed, 52 died in the hospital, 20 deserted, 122 were taken prisoners, and 167 were wounded; in all 559; but many of the wounded recovered. Of the lascars, who were natives assisting the artillery, 9 were killed and 15 wounded. Of the sepoys, including

meantime the English arms under Colonel Forde were progressing satisfactorily towards the north, where Clive had sent a detachment to operate in the Northern Circars, ere this was ceded by the Nizam to the French[39]. Their successes culminated in the fall of Masulipatam on the 7th April, by which the French influence with the Nizam was destroyed, and a tract of territory around Masulipatam extending eighty miles along the coast and twenty miles inland was ceded by him to the English. The operations in the south were of a minor nature until 22nd January 1760, when the French under Lally were completely defeated at Wandiwash, near Arcot, by Colonel Coote who had arrived with reinforcements from England. This was followed by the capture within a fortnight of Jinjee and Arcot. Minor forts fell in succession, and by May the English were in a position to lay siege to Pondicherry. Lally then had recourse to the services of Hyder Ally; an adventurer who subsequently usurped supreme power in Mysore, but at that time merely held high military command under the Rajah. An English detachment sent to meet the Mysoreans was defeated, and the situation of the English might have become critical had not affairs at home recalled the Mysore troops to their own country. Deprived of the aid of the Mysoreans the French cause soon became hopeless, and

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officers, 105 were killed, 217 wounded, and 440 deserted. The loss in Europeans was more than reinstated by the troops brought in the ships. The Governor, Mr. Pigot, as soon as the enemy disappeared, relinquished the special authority which had been vested in himself, to the usual administration of the council, of which he was President; and received their thanks for the good effects of his resolution and activity during the siege; he had visited the works every day, encouraging the garrison by his presence and rewarding those exposed to severer services with money. Provisions of all kinds in abundance and of the best condition had been laid up, and as well as all the military stores were distributed from the different magazines, under the direction of the Members of the Council, assisted by the inferior servants of the company, whose habits of business established and continually pressed these details free of all let and confusion. The loss of men sustained by the French army is not known. There were 2,700 firelocks when they advanced on Madras, and M. Lally in an intercepted letter during the siege, mentions his having 2,000 Europeans. The sepoys with him were not more than 1,000.

[39] SKETCH HISTORY OF THE NORTHERN CIRCARS—*Under the Golcondah Dynasty.*—It was not till A.D. 1471 that the Mahomedans of the Deccan extended their arms to the Northern Circars. At this time, the Rajah of what is now the Ganjam country died without issue, and his adopted son and his cousin became competitors for the succession. The latter had recourse to Mahomed Shah, the last king but one of the Bahminy Dynasty of the Deccan, who not only installed him, but acquired for him, A.D. 1480, on condition of his becoming tributary, the countries of Condapilly, Ellore and Rajahmundry. About A.D. 1490, Mahomed's successor, Mahmood, acquired Masulipatam and Goontoor, which districts formed part of Vijianugger. In 1512 when the Bahminy Dynasty was dismembered, and the five Deccany kingdoms were set up, the Northern Circars fell under the dominion of the Cootbshahy state, whose capital was Golcondah or Hyderabad. That portion south of the Godavery became tributary without difficulty, but Gujapaty, a powerful prince of Orissa, who ruled in Rajahmundry and Chicacole, withheld submission, and it was not till A.D. 1571 that his pretensions were lowered. At this period an ancestor of the Peddapore family was induced to take a treasonable part against the Reddy or Gujapaty, under whom he was chief renter, and assisted the designs of the Deccany king; still the subjection of Rajahmundry and Chicacole was not very complete, though the collections were made by the Deccany Government. (2) *Under Aurungzeeb.*—In 1687 Golcondah was taken by the imperial arms, and the Cootbshahy dominions passed over to Aurungzeeb. Aurungzeeb was too much occupied with establishing his authority in the Deccan, and curbing the Mahrattas, to pay much attention to the Orissa coast, and in the period which followed his death, the empire of the Moghuls was so distracted that no regular government was established in the Circars. (3) *Under the Nizam of Hyderabad.*—When Nizam ool moolk was constituted by the Moghul Emperor, Soobadar of the Deccan, in A.D. 1713, he took steps to settle the Orissa country, and appointed to the Government of Chicacole, Anwar ood deen Khan, so well known afterwards as Nawab of the Carnatic. Roostam Khan was appointed to Rajahmundry and the Circars to the south. He introduced a settled administration of revenue, but did not spare the zemindars, who had defrauded the public treasury and despoiled the country by their oppressions. A pile of heads was exhibited at Rajahmundry, and a similar monument at Masulipatam. For zemindars, ameens were substituted, but it soon became necessary to recur to the ancient system of finance, through the agency of farmers-general, who were Hindoos. They had certain local privileges, which became hereditary, and by degrees, a new race of zemindars sprung up. (4) *Enumeration of the Circars.*—The Northern Circars were, when under the Nizam's Government, five in number, as follows:—Goontoor or Moortezahnugger or Condaveed, Condapilly or Moostafanugger, Ellore, Rajahmundry, and Chicacole. The boundaries of Goontoor were the Kistna on the north and west, Cuddapah and Ongole on the south. Condapilly comprehended the strip of country between the Kistna on the south, and the town of Ellore and the Colair Lake on the north. It later formed part of the British Masulipatam district. Ellore was the country between Condapilly and the south branch of the Godavery, where it falls into the sea at Narsapore. North of Rajahmundry was the large Circar of Chicacole, anciently called Calinga (whence Calingapatam). It had two sub-divisions, viz., Chicacole proper (or Vizagapatam) and Ichapore (or Ganjam); the river Poondy at the town of Chicacole being the boundary. Besides these five, there was a portion of country, or a coast strip from Motoopully to Point Godavery, called the Masulipatam Havelly, held as a personal estate of the reigning power. It was under a separate governor, who had the charge of the salt-pans and customs at Nizampatam and other ports. Masulipatam was considered the chief town and fortress of the Northern Circars. (5) *Under the French.*—Moozuffer Jung on his accession to the soobadarship, by the assistance of Dupleix in 1750, presented the town of Masulipatam and the country round to the French; and in 1752, Salaubut Jung, the successor of Moozuffer Jung, made over to them the whole of the Northern Circars. For they, through M. Bussy, had rendered him essential service. Bussy was appointed to rule these provinces. He dismissed the zemindars from their employments, but permitted them to enjoy, under French sunnuds, their rasooms and sauvarams (hereditary perquisites and privileges), to the amount of about one-tenth of the revenue of the country. He had most difficulty with the large Circar of Chicacole, where independent chiefs, family feuds, and internal usurpations thrown every thing in disorder. Bussy's object was to unite all under one head, and he fixed on Vijiaram Rauz of Vizianagram. With French assistance, the Bobbily and other chiefs were subdued. Bussy was obliged to reside generally at the Nizam's Court at Hyderabad, and thus his plan of revenue administration was never fully carried out. Vijiaram Rauz was succeeded by Ananda Raz Gujapaty, who soon found Bussy too energetic a master. Lally the Governor of Pondicherry having recalled Bussy to assist in the siege of Madras, Ananda Raz made offers to the Madras Government to assist in taking possession of the Circars. The Madras Government, with the French army at their gates, declined; on which the Rajah applied (in 1758) to Bengal, and Lord Clive detached Colonel Forde to co-operate with him. Forde defeated Conflans, Bussy's successor, at Peddapore. The French general then retreated to Masulipatam, and obtained promise of aid from Salaubut Jung, who marched towards the scene of action. Though Ananda Raz and his party fled, Forde continued his course and

on the 16th January 1761 Pondicherry surrendered. With this event the French power in the Carnatic virtually ended. By the peace of Paris in 1763, Pondicherry was restored to the French, but with a territory less extensive. Mahé, Caricaul, Chandernagore, and other factories in Bengal were in like manner restored, but they were not occupied before 1765.

118. THE FIRST MYSORE WAR.—So far as the English were concerned there were no more military operations in Southern India until 1766, beyond granting such aid as was from time to time necessary to enable the Nawab of the Carnatic to repress insurrection. Negotiations were carried on with the Nizam of Hyderabad for the cession of the Northern Circars, but with no very satisfactory results; and in 1765 sunnuds transferring these tracts to the Company were obtained direct from the Emperor of Delhi, whose paramount authority was recognized by the Nizam. The Madras Government however hesitated to avail themselves of the powers thus assigned to them except with the consent of the Nizam; and in 1766, although sending a body of troops to secure their possession, they entered into a treaty with the Nizam, agreeing to pay tribute for the Circars and to defend the Nizam against his enemies. In the meantime the Mysore adventurer, Hyder Ally, had succeeded, not only in obtaining supreme power in that province, but in extending his dominion on all sides; and the English were speedily called on under the treaty to assist the Nizam and the Mahrattas in checking the advance made in the direction of their territories. No sooner however had operations commenced than Hyder Ally, by judicious expenditure of treasure, not only bought off the Mahrattas, but even induced the Nizam to desert his allies and join him in a descent upon the Carnatic. Colonel Smith, who commanded the English troops, finding himself thus opposed to a force very much larger than his own, commenced a

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eventually took Masulipatam by storm, before Salaubut Jung reached it. (6) *Protection by the British.*—This occurred in April 1759, two months after the French had raised the siege of Madras. A treaty was concluded with Salaubut Jung, by which the whole territory dependent on Masulipatam (about 80 miles of coast and 20 inland) was ceded to the British, and the French were to be made to leave the country. The rest of the Circars was left nominally under the Nizam's authority, though in fact, the driving out of the French from the Northern Circars was virtually a conquest of the whole. The Nizam, occupied with the intrigues of his brothers, Basaulat Jung, and Nizam Ally, and with the incursions of the Mahrattas, was quite unable to maintain his authority in the Circars. In 1761, Nizam Ally effected the supersession of his brother Salaubut Jung, and, after keeping him in prison two years, was accessory to his murder. Ally's title was however confirmed by the Emperor at Delhi. In 1762, four of the Circars were offered by Nizam Ally to the Company—the fifth, or Goontoor, being held as a jagheer, by his brother Basaulat Jung. But, as the terms required were those that the French had formerly accepted, viz., the condition of affording military aid to the Nizam, the offer of the Circars was declined. They were then placed in the charge of one Hoossain Ally, and, to prevent the intrusion of the French, the English Government in 1765 agreed, at the Nizam's request, to aid him with their authority. The whole country was in disorder, each zemindar being a petty prince, hardly acknowledging any authority on the part of the Nizam. Hoossain Ally, supported by the English, obtained possession of Condapilly, Ellore and Rajahmundry, having engaged to put the Company in possession of them whenever required, on a reasonable maintenance being secured to him. In October 1765, the Council at Madras advised the Directors that Lord Clive had, at the instance of Mr. Palk, the President at Fort St. George, obtained sunnuds from the Moghul for all five Northern Circars and a confirmation of the jagheer granted by the Nawab to the Company near Madras. It was judged prudent to defer taking immediate possession of the Circars, as the council were not aware how far they might be required to send aid in troops to Bengal. The revenue for the next year had been anticipated by Hoossain Ally, to enable him to make good his payments to the Nizam and support his troops, but the possession of the sunnuds was important, the French being thereby prevented from getting a footing in that part of the country. The sunnuds were however published at Masulipatam, and received there with general satisfaction. A military force was sent, under General Calliaud, to support the authority of the grantees, and the fort of Condapilly, which in a great measure secured the pass into the Circars and resisted his entrance, was carried by assault. The council now determined to take the countries into their own hands, to receive from the zemindars the outstanding balances, and use every means for discharging Hoossain Ally's troops. In order that Nizam Ally might throw no obstacles in the way, a treaty of alliance was signed at Hyderabad on the 12th November 1766. By this treaty, the Company, in consideration of the grant of the Circars, engaged to have a body of troops, at His Highness' disposal, to settle any internal rebellions, or in the event of troops not being required to pay nine lakhs of rupees per annum. Goontoor was to remain in possession of Basaulat Jung till his death. The diamond mines were specially reserved to the Nizam. On the 1st March 1768, another treaty was made (after the Nizam's failure as an ally of Hyder to subvert the English) by which His Highness acknowledged the validity of the Emperor's firmaun. He was to be paid five lakhs of rupees a year; out of which, 25 lakhs were to be deducted as the expenses of the war. This payment was made to appear not as peshcush, but as a mark of amity. Goontoor was left in the hands of Basaulat Jung as before. (7) *Acquisition by the British.*—In 1769, the term for which the Circars had been let to Hoossain Ally having expired, they were taken under the Company's management. Basaulat Jung subsequently gave great uneasiness to the British by receiving into his service a body of French troops. Application was made to his brother, Nizam Ally, who promised to get them removed, but it was not done. In 1778, a treaty was entered into with Basaulat Jung, by which the Company were to rent Goontoor from him during his life for the sum he had previously realized for it. He, on his part, was to dismiss his French troops, and the Company were to assist him with a subsidiary force, kept up at his expense. Basaulat Jung had other territories south of the Kistna, Adony being his capital. In 1779, the Government became again at variance with the Nizam, who was once more in confederacy with Hyder. The plea on his part was the Company's refusing to pay peshcush for the Northern Circars, on the ground of their being held under the sunnud of the great Moghul. The approaching hostilities with Hyder obliged the Madras Government to withdraw from the position of independence they had assumed, and in which they were not supported by the Bengal Government, who went even farther in 1780, and, on the representations of Basaulat Jung and Nizam Ally, directed that the treaty with Basaulat Jung should be cancelled and Goontoor restored to him. Basaulat Jung died in 1782, but not for six years (in 1788) was possession of Goontoor obtained, and then only on a peshcush of seven lakhs per annum. Nizam Ally died in 1803. In 1823 the peshcush was redeemed by a payment of 1,200 lakhs to the Nizam, and it then became a British possession.


MAP
of the Central Districts of the Presidency
illustrating the wars in the Carnatic
Scale 1/64th Inch to the Mile. or 1/4055040 of nature
64
32
0
64
128 MILES.
80°
15°
10°
NIZAMS DOMINIONS
GODAVERY
BOMBAY
MYSORE
COIMBATORE
MADURA
Goontoor
Masulipatam
SOUTH OF THE KISTNA.R
Toongabudra R.
Kurnool
COONDLACUMMA.R.
Vijianugger
PENNAIR.R.
Cuddapah
Armegam
Poolicat
MADRAS & FORT.ST.GEORGE
St. Thome or Mylapore
Poonamallee
Conjeeveram
Covelong
Chingleput
Sadras
PALAUR.R.
Alamparva
Arcot
Tripatore
Trinomallee
Wandiwash
Chitput
Jinjee
Vicravandy
Valdavoor
PONDICHERRY
Ariancoopam
PONNIAUR.R
Villenoor
Bahoor
Fort St. David
Cuddalore
Porto Novo
VELLAUR.R.
Chidambaram
COLEROON.R
Devicottah
SHEVAROY HILLS
Yelavanausore
Trivady
Vriddhachellam
Volcondah
CAUVERY.R
Tranquebar
Ootatoor
Caricaul
Nagore
Negapatam
Trichinopoly
Tanjore
Tiroovalore
Coromandel

retreat, followed by the allies who overtook him at Chengam. The English repulsed the attack thus made, but were compelled to continue their retreat to Trinomallee. On being attacked at that place the victory of the English was decisive, the troops of Hyder and of the Nizam retreating in the utmost confusion; while bands of marauding horse, who had been plundering the country up to the very gate of Madras under the command of Hyder's son Tippoo, a boy of seventeen, considered their situation to be no longer secure, and drew off to rejoin the rest of the army. Colonel Smith however was too weak to follow up his victory, and withdrew his troops into cantonment for the rains, which were now at hand. Hyder at once took advantage of this inaction to reduce a few unimportant fortresses, but his movements were checked at the hill fort of Amboor; where Captain Calvert, with a garrison of five hundred sepoys and fifteen Europeans, defied the utmost efforts of Hyder's armies for nearly a month, when he was relieved by Colonel Smith on the 7th December 1767. Hyder then drew off, and after a few skirmishes he retired above the ghauts, having learned that an expedition from Bombay had captured his fleet in the harbours of Canara and commenced hostile operations in his territories on the Western Coast. Risking an invasion from the east, Hyder hurried over to meet what to him seemed the more imminent danger, and appeared suddenly before Mangalore in such force as to compel the re-embarkation of the expedition. In the meantime, though very imperfectly informed of Hyder's actual movements, the Madras Government resolved to commence offensive operations; and one body of troops under Colonel Wood proceeded to reduce the fortresses under the south-eastern slopes of the ghauts, while another entered Mysore proper under Colonel Smith. The movements of both detachments were at first uniformly successful, but as soon as they had united in August 1768, with the view of attacking Bangalore, Hyder returned from the Western Coast and made an attack on the camp of a Mahratta contingent; a movement which though unsuccessful was sufficient to show that it would not be possible to reduce Bangalore unless a decisive victory could be first obtained over Hyder in the field. Various marches and counter-marches were undertaken with this object, but in vain; and after reconquering a number of the fortified places on the tableland, Hyder descended into the lowland by passes unknown to the English, and retook the fortresses in Coimbatore, the Baramahaul, and Salem, which in almost all cases had been left inadequately supplied with troops. He did not however risk an engagement in the field with Colonel Smith; and a treaty was concluded on the 4th April 1769, on the basis of a mutual restitution of conquests with the exception of Caroor, which was ceded to Hyder on the ground of its being an ancient dependency of Mysore.

119. THE SECOND MYSORE WAR.—From the date of this treaty until the year 1780 the military operations in the south of India, other than the usual duties of assisting the Nawab of the Carnatic in keeping peace in his own dominions and in his disputes with the Tanjore Rajah, consisted in the capture of Pondicherry from the French in 1778, and the reduction of the French settlement of Mahé on the Western Coast in 1779. These events were a consequence of the renewed war in Europe between France and England. Sir Hector Munro was the English commander; and the Governor was M. de Bellcombe, who made an obstinate defence. The garrison consisted of 3,000 men, of whom 900 were Europeans; the besieging army of 10,500 men, of whom 1,500 were Europeans. The war which broke out again with Hyder in 1780 arose from the fact that the Nawab of the Carnatic failed to furnish the supplies necessary to enable the English to fulfil the stipulations of the treaty of 1769. Hyder succeeded in forming an alliance with the Nizam and the Mahrattas, and descended on the plains of the Carnatic in July 1780, burning crops and devastating villages; so that a cordon of blackened desert was formed around Madras, commencing at the lake of Poolicat, extending some fifty miles inland, and terminating a little to the north of Pondicherry. Sir Hector Munro proceeded to Conjeeveram, and directed Colonel Baillie to join him there with troops from the north. Hyder endeavoured to prevent the junction, and Sir Hector Munro seeing that Colonel Baillie was in danger, sent a detachment under Colonel Fletcher to his aid; which successfully eluded the enemy, and joined Colonel Baillie on the 9th September, only to be included however in the general massacre which took place when Colonel Baillie's force was attacked by overwhelming

numbers on the following day. Sir Hector Munro considered Conjeeveram no longer tenable when he heard the news of this disaster, and commenced a retreat to Madras; which he reached on the 14th September, leaving the field open to Hyder. On receipt of the intelligence at Calcutta, the Governor-General Warren Hastings suspended Mr. John Whitehill the Governor of Madras, and despatched Sir Eyre Coote with reinforcements. The latter arrived on the 1st November 1780, but was unable to take the field until the 17th January 1781. On the 19th he relieved Chingleput, and on the 21st retook Caroongooly; which had the effect of raising the siege of Wandiwash, a place defended with great distinction by Lieutenant Flint. Hearing of the arrival of a French fleet off Pondicherry Sir Eyre Coote proceeded to that place, but, finding that the fleet had brought no land forces, he turned his attention to the protection of Cuddalore. Hyder had followed him down the coast, but moved off when the English general offered battle; probably considering it better to weaken the force by cutting off supplies, from the want of which the English army had already experienced considerable difficulty. Thus hampered, the troops remained almost inactive until the 18th June, when an ineffectual attempt was made to capture Chidambaram. The news of this failure emboldened Hyder to make a decisive attempt to annihilate the English army, and he accordingly advanced and took up a position close to Sir Eyre Coote's camp at Porto Novo, a small town on the coast about 14 miles south of Cuddalore. The battle commenced early on the morning of the 1st July 1781, an English fleet lying close in shore with the view of enabling the embarkation of the remnant of the army in the contingency of its being defeated in an encounter with an enemy eight times its numerical superior. The battle was long and severe, but by four o'clock in the afternoon the enemy were in precipitate retreat. The want of proper equipment rendered Sir Eyre Coote unable to take full advantage of the victory which he had gained, but he succeeded in again relieving Wandiwash on the 18th July; after which he proceeded northwards and joined a detachment from Bengal at Poolicat, having eluded the force sent to intercept him by adopting a line of march hitherto supposed impassable for troops. Thus reinforced he marched against the fortress of Tripassore and procured its surrender on the 22nd August, shortly before Hyder's relieving army appeared on the field. A general action took place on the 27th; but with no very decisive result, though the English kept possession of the field. A month later, on the 27th of September, the English commander surprised the enemy near Sholinghur and gained such a victory as put him in a position to throw provisions into Vellore; which had been defended from the commencement of the war against the finest troops and strongest batteries which Hyder's resources could furnish. In November the English army retired for the monsoon to Madras, where it remained until the following January, when it had once more to advance to the relief of Vellore. Hyder then turned his attention to Cuddalore, and succeeded in reducing it with the assistance of a French contingent which had landed at Porto Novo. The reduction of Permacoil by Hyder followed, but Sir Eyre Coote once more arrived in time to save Wandiwash. In the meantime war had broken out with the Dutch as well as with the French, and the Dutch settlements of Sadras, Poolicat, and Negapatam had been captured. A portion of the force employed for the reduction of the latter place was subsequently detached under Colonel Brathwaite to operate in Tanjore. Deceived by the spies, the small force was suddenly surrounded by superior numbers under Hyder's son, Tippoo, and only a small remnant escaped with their lives. To counterbalance this, a rebellion had broken out in Malabar, and a small force of English sent to their aid gained a considerable victory at Tellicherry, which necessitated the immediate despatch of Tippoo to the Western Coast; and Hyder Ally, considering himself overmatched by Sir Eyre Coote, determined to quit the Coromandel Coast. The English commander then returned with his army to Madras, and General Stuart assumed the command in his place. The English force on the Western Coast was scarcely strong enough successfully to oppose that brought against it, but the news of the death of Hyder at Chittore on the 7th December 1782 led to Tippoo's speedy return to the head-quarters of the principal army; thereby leaving the field open to the English, who were shortly afterwards reinforced by a considerable number of troops from Bombay under General Matthews. Several places on the coast fell in rapid succession, and eventually the English penetrated to Bednore

above the ghauts. Here however their success ended, Tippoo returning and compelling the surrender of the place on the 3rd May; after which he marched to the siege of Mangalore, where a small fort was in the occupation of Colonel Campbell. The garrison of this place was insignificant and the material defences of the place equally so, but Tippoo was unable to take it by assault and his large army remained for many months practically inactive, while his French allies under M. Bussy were being besieged in Cuddalore. On the receipt of the news of the conclusion of peace between France and England, an armistice was agreed upon under which Tippoo was bound to provision the garrison of Mangalore. He however supplied provisions which were unfit for consumption, and the garrison, broken down by famine and sickness, capitulated on the 30th January 1784; the health of the commander being so undermined that he expired on the 23rd March following. After much delay, peace was ultimately concluded on the 10th March on the basis of a mutual restoration of conquests. During this war many of the English prisoners, including General Matthews, were put to death by Tippoo.

120. THE THIRD MYSORE WAR.—After the conclusion of peace with the English, Tippoo seized about thirty thousand of the Christians of Canara, forcibly converted them to Mahomedanism, and deported them to the country above the ghauts. Subsequently, rebellions of the Nayars of Malabar on account of a similar exercise of religious zeal in that portion of his territory led to expeditions for their suppression; and many of the Nayars having taken refuge in Travancore, Tippoo resolved to invade that country in their pursuit, notwithstanding an intimation that such a proceeding would involve him in another war with the English. His first attempt to enter Travancore ended in failure. A second was more successful, and the country was overrun; but, on his return to Coimbatore, Tippoo found an English army in the field at Trichinopoly under the command of General Medows, the Governor of Madras, who had also entered into alliances with the Mahrattas and the Nizam. Tippoo at first withdrew to Seringapatam, which he had established as the capital of his dominions; and the English met with little opposition in the reduction of the various forts along the south-eastern slopes of the ghauts until the 7th September, when their army was attacked by a force commanded by Tippoo in person, which had descended by the Guzzelhutty pass. The attack was repulsed, but General Medows' efforts to bring on a general action were evaded by Tippoo; and nothing but indecisive skirmishes took place, until the Governor-General, Lord Cornwallis, took the field in person, and assuming the command on the 29th January 1791, at once commenced preparations for a march upon Bangalore, concentrating his army at Vellore. Tippoo hastened to intercept his advance, which he expected would be made by the passes near Amboor, but the demonstration in that direction was a feint, and the tableland was reached by the more northerly pass of Moogly without a shot being fired. The pettah or town of Bangalore fell early in March, and on the night of the 20th the fort was taken by assault after a severe contest of little over an hour. While these operations were going on in Mysore, Colonel Hartly from the Madras side had defeated the Sultan's troops near Calicut; and General Abercrombie, Governor of Bombay, had landed at Tellicherry with a considerable force, and reduced Cannanore without encountering much opposition. But little difficulty was met with in the operations in that neighbourhood, and within a very short time the whole of Malabar was in the occupation of the English. Operations on a smaller scale were conducted in the north in concert with the Mahrattas and the Nizam, the latter having also despatched a body of about ten thousand horse to join Lord Cornwallis' army.

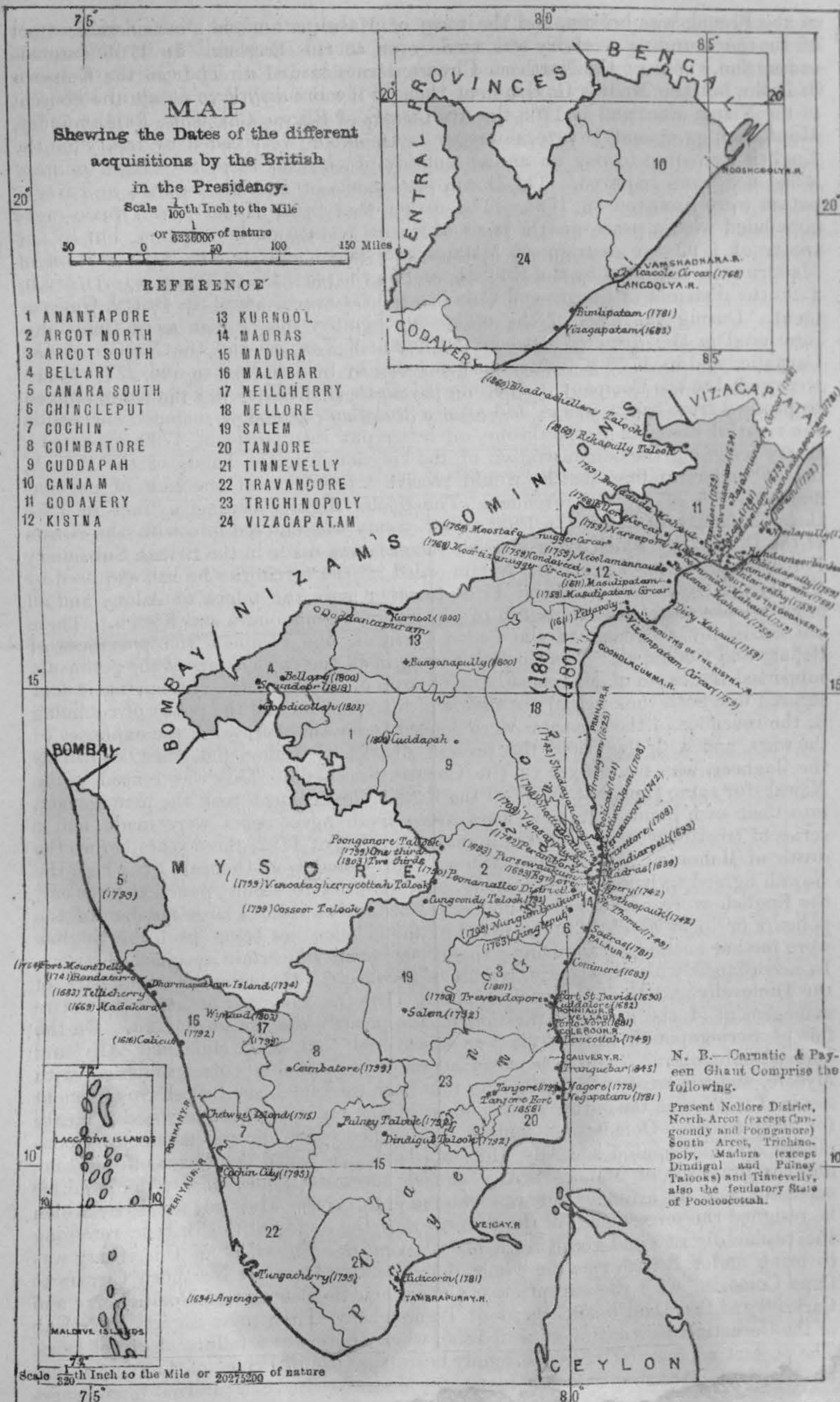
121. On the 4th of May the English army left Bangalore to march against Seringapatam; but the route was so difficult, the means of transport was so limited, and the devastation of the country by Tippoo had been so well carried out, that notwithstanding a successful engagement at Arekerey only nine miles from Seringapatam, Lord Cornwallis was compelled to abandon his plan of operations for the time and retire to the vicinity of Bangalore, where he occupied himself for some time in reducing the hill forts. The Nizam's troops and the Mahrattas having marched from the north and reinforced his army with both men and supplies, Lord Cornwallis again appeared before the walls of Seringapatam on the 5th February 1792. On the night of the 6th, the outlying encampment and redoubts were

carried and the city closely invested on two sides. Preparations were made for the vigorous conduct of the siege, and on the 16th the army was joined by that of General Abercrombie from Malabar. A few days previously Tippoo had made overtures for peace; but the negotiations did not lead to a cessation of prepartions for the siege, and it was evident that the fall of Seringapatam was close at hand when on the 24th February orders were issued for the discontinuance of all hostilities. Peace had been agreed upon on the basis of a cession to the allies of one-half of the dominions of which Tippoo was in possession before the war, the payment of three crores and thirty lakhs of rupees, and the restitution of all prisoners including those retained from the time of Hyder. Under this treaty the English came into possession of the Baramahaul, Dindigul, Malabar, and Coorg; the latter being restored to the Rajah, who had rendered essential aid to the English in the course of the war.

122. Though thus severely disabled, Tippoo was not rendered completely powerless. He lost no time in commencing a series of intrigues with the view of engaging to his side those who had been the allies of the English, and even despatched an embassy to Paris asking for the assistance of the French. His overtures being rejected by Louis XVI, he renewed them after the revolution had broken out, and a contingent of ninety-nine men from the Mauritius landed at Mangalore in 1798. The aid thus received was insignificant, but the object of applying for it was manifest, and the Governor-General Lord Mornington resolved to act at once rather than wait till Tippoo had matured his plans. Instructions were despatched for the immediate adoption of such measures as were necessary to place the Madras army on a satisfactory footing, and an alliance was entered into with the Nizam. The object of the Governor-General was to obtain possession of the maritime territory still under Tippoo, and thus preclude him from communication with the French; and before commencing the war, an opportunity was afforded him of averting it by timely concession. But the efforts at negotiation were ineffectual, and offensive operations were determined on. The army of the Carnatic was placed under the command of General Harris, while another force from Malabar under General Stuart ascended into Coorg early in March 1799. Tippoo directed his first efforts against this latter army, but was beaten at Siddeshwar near Periyapatna, and in the meantime General Harris and the Nizam's troops crossed the Mysore frontier. Tippoo turned to meet them, and was defeated with severe loss in a general action at Malvally on the 27th March. He then retired to Seringapatam, and the allies advanced to the siege, which lasted for a month before a practicable breach was made. The assault commenced at one o'clock on the 4th May, and before evening Tippoo was dead, and the whole town was in the possession of the English. The dynasty of Hyder and Tippoo having practically come to an end with the fall of the latter, the settlement of the country was effected by the restoration of Mysore proper to the representative of the ancient royal family whose rights had been usurped by Hyder. The greater part of the remainder was then divided between the English and the Nizam, the districts of Canara, Coimbatore, and Wynaud falling to the share of the former. A portion was also reserved for the Peshwa, with the view to its forming a basis for a new treaty with the Mahratta empire. Arrangements were at the same time made by which Mysore should be precluded from again becoming a great military power, and, it was stipulated that the heads of all the passes on the tableland should remain in perpetuity in the hands of the British.

123. Summary of the Acquisitions made in different parts of the Presidency.—The military history of the Madras Presidency ceases with the treaty of 1799; all subsequent addition of territory, with one exception, having been peacefully acquired. The following is a brief summary of all the territorial acquisitions made in the south. A trading settlement was established at Masulipatam in 1611, and in 1639 and in 1690 Forts St. George and St. David were built at Madras and Tegnapatam respectively by the permission of the ruling Hindoo princes. The fort of Tellicherry in Malabar was similarly established in 1683. The first footing in Tanjore was gained by the cession of Devicottah in 1749, as a reward for assistance rendered to a successful claimant to the throne. The Nizams Mirzapha Jung and Salaubut Jung had ceded Masulipatam and portions of the Northern Circars to the French; but, on the capture of Masulipatam by the English in 1759, the influence

of the French was broken, and the town of Masulipatam and a considerable tract of the surrounding territory was made over to the English. In 1765 sunnuds ceding the whole of the Northern Circars were obtained direct from the Emperor of Delhi, but the Madras Government thought it more politic to obtain the consent of the Nizam also, and in 1768 the five Circars of Ellore, Chicacole, Rajahmundry, Moostafanugger, and Moortezahnugger or Goontoor were ceded by treaty on the English agreeing to pay an annual subsidy of nine lakhs, or to furnish military assistance when required. The Dutch settlements of Poolicat, Sadras, and Negapatam were annexed in 1781. The earlier wars with Hyder and Tippoo were concluded with a peace on the basis of mutual restitution of territory, but by the treaty of 1792 the districts of Malabar and Salem and the Dindigul division of Madura were acquired by the English, and on the partition of Tippoo's territory in 1799 the districts of Canara and Coimbatore fell to the share of the British Government. During the wars of the eighteenth century the English more than once interfered in the disputes between the Rajah of Tanjore and the Nawab of the Carnatic, and in 1778 a treaty was concluded by which Nagore and 277 villages were ceded to the Company. The internal affairs of the Tanjore kingdom continued to proceed from bad to worse, and after a turbulent period of disputed succession the rightful claimant to the throne, on being put into power in 1799, executed a treaty resigning the administration of the kingdom into the hands of the British, on the understanding that he would receive a provision of one lakh of pagodas and one-fifth of the net revenues. The titular dignity became extinct in 1855 through failure of heirs. In 1800 a new treaty was entered into with the Nizam of the Deccan, by which a considerable increase was made in the British Subsidiary Force, on account of which the Nizam ceded all the territories he had acquired by the Mysore treaties of 1792 and 1799, together with the talook of Adony and all other talooks situated to the south of the rivers Toongabudra and Kistna. These are known by the name of the Ceded Districts, and comprise the provinces of Bellary and Cuddapah. The English having in all the earlier wars of the peninsula supported the cause of Mahomed Ally, Nawab of the Carnatic, and having in fact secured him both the original possession of his kingdom and the power of retaining it, the revenues of the Carnatic were looked to for the defrayal of the expenses of the wars, and with this view the present district of Chingleput, then known as the Jagheer, was made over to the Company in 1763. This was rented to the Nawab for some time, but in 1780 the British Government took the management into their own hands. As new wars arose fresh agreements were made, and a series of treaties were executed culminating in that of 1792, three years before the death of Mahomed Ally and the accession of Oomdat-ool-Oomrah, by which the Nawab agreed to pay a large subsidy, and, in order to secure punctual payment, the English were authorized to collect tribute direct from a large number of the poligars or local chiefs. In the event of the balance not being paid, the English were further authorized to assume the management of certain specified districts. In accordance with this treaty, tribute was collected throughout a great part of the Tinnevelly and Madura districts, and in 1795 the Company assumed the entire management of the Ramnaud division of the present district of Madura. On the fall of Seringapatam in 1799 it was discovered that both Mahomed Ally and Oomdat-ool-Oomrah had been carrying on a treasonable correspondence with Mysore, and the treaty of 1792 having thus been infringed, the British Government resolved to assume the entire management of the Carnatic, and proposed a treaty for the purpose. Oomdat-ool-Oomrah having died before arrangements were concluded, and his reputed son Ally Hoossain having rejected the terms offered him, another grandson of Mahomed Ally named Azeem-ood-Dowlah, was declared his successor, and an arrangement was entered into on the 31st July 1801, by which he resigned the government of the country into the hands of the British, retaining the titular dignity and receiving a liberal stipend. The effect of this treaty was to bring under British rule the whole of the country from the Northern Circars to Cape Comorin, with the exception of the French Settlements of Pondicherry and Caricaul and the Danish settlement of Tranquebar. The titular dignity of Nawab of the Carnatic was continued until 1855, when there was a failure of direct heirs. The present representative of the family bears the title of Prince of Arcot, and has the position of the first native nobleman of Madras. In 1838 internal mismanage-


MAP
Shewing the Dates of the different acquisitions by the British in the Presidency.
Scale 1/100th Inch to the Mile or 1/6336000 of nature
50 0 50 100 150 Miles
REFERENCE
1 ANANTAPORE
2 ARCOT NORTH
3 ARCOT SOUTH
4 BELLARY
5 CANARA SOUTH
6 CHINGLEPUT
7 COCHIN
8 COIMBATORE
9 CUDDAPAH
10 GANJAM
11 GODAVERY
12 KISTNA
13 KURNOOL
14 MADRAS
15 MADURA
16 MALABAR
17 NEILGHERRY
18 NELLORE
19 SALEM
20 TANJORE
21 TINNEVELLY
22 TRAVANCORE
23 TRICHINOPOLY
24 VIZAGAPATAM
CENTRAL PROVINCES
BENGAL
GODAVERY
Chicacole Circar (1768)
Bimlipatam (1781)
Vizagapatam (1683)
VIZAGAPATAM
NIZAM'S DOMINIONS
BOMBAY
BOMBAY
MYSORE
Masulipatam (1611)
Kurnool (1800)
Bellary (1800)
Cuddapah
Poonamallee District
Madras (1639)
Fort St. David (1690)
Cuddalore (1682)
Devicottah (1749)
Tranquebar (1845)
Nagore (1778)
Negapatam (1781)
Tanjore Fort (1856)
Salem (1792)
Coimbatore (1799)
Wynaad (1803)
Calicut
Tellicherry
Cochin City (1795)
Dindigul Talook (1792)
Palney Talook (1792)
Tuticorin (1781)
Anjengo
LACCADIVE ISLANDS
MALDIVE ISLANDS
CEYLON
Scale 1/320th Inch to the Mile or 1/20275200 of nature
N. B.—Carnatic & Payeen Ghaut Comprise the following.
Present Nellore District, North-Arcot (except Gungoondy and Poonganore) South Arcot, Trichinopoly, Madura (except Dindigul and Pulney Talooks) and Tinnevelly, also the feudatory State of Poodoocottah.

ment and suspicion of treasonable intrigue on the part of the Nawab of Kurnool led to the occupation of his territory by an armed force and to its subsequent annexation. Tranquebar was ceded by the Danes in 1845. The district of North Canara was transferred from this Presidency to the Bombay Presidency in 1862[40].

124. RECENT EVENTS.—Since the beginning of the present century, Madras has known no regular war. But over such a wide area of territory occasional disturbances have called for measures of military repression. The poligars or local chieftains in the south long adhered to their independence after their country was ceded to the British. On the west coast, the feudal aristocracy of the Nayars and the religious fanaticism of the Moplahs have more than once led to rebellion and bloodshed. In the extreme north, the wild tribes occupying the hills of Ganjam and Vizagapatam have only lately learned the habit of subordination. In 1836, the zemindarry of Goomsoor in this remote tract was attached by Government for the rebellious conduct of its chief. An inquiry then instituted revealed the wide prevalence among the tribe of Khonds of human sacrifice, under the name of meriah. The practice has since been suppressed by a special agency. As lately as 1879 the country round Rumpa on the northern frontier was the scene of riots sufficiently serious to lead to the necessity of calling out troops.

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[40] CHRONOLOGICAL TABLE OF BRITISH ACQUISITIONS IN THIS PRESIDENCY.

Year.	Acquisition.	
1611	Pettapoly and Masulipatam.	Kistna.
1616	Calicut	Malabar.
1621	Poolicat	Chingleput.
1625	Armegam	Nellore.
1634	Veeravausaram	Godavery.
1639	Madras	......
1669	Madakara	Malabar.
1679	Madapollam	Godavery.
1681	Porto Novo	South Arcot.
1682	Cuddalore	South Arcot.
1683	Vizagapatam	Northern Circars.
1683	Tellicherry	Malabar.
1683	Conimere	South Arcot.
1690	Fort St. David	South Arcot.
1693	Tondiarpett, Pursewaukum, and Egmore.	Madras City.
1694	Anjengo	Travancore.
1708	Vyasarpaudy and Nungumbaukum.	Madras City.
1708	Trivettore, Shattancaud, and Cuttiwaukum.	Chingleput.
1715	Chetwye Island	Malabar.
1722	Inzaram	Godavery.
1734	Dharmapatam Island ...	Malabar.
1741	Randatarra	Malabar.
1742	Vepery, Perambore, and Poothoopauk.	Madras City.
1742		
1742	Yernavore	Chingleput.
1742	Shadayancooppam ...	Chingleput.
1749	St. Thomé	Madras City.
1749	Devicottah	Tanjore.
1750	Trevendapore	South Arcot.
1750	Poonamallee District ...	Chingleput.
1751	Bendamoorlunka and Neelapully.	Godavery.
1754	Fort Mount Delly ...	Malabar.
1759	Masulipatam Circar; Havelly, Divy, Mallore, Ingoodoor, Pedana, Toommidy, Bondauda, and Narsapore Mahauls; Nizampatam Circar; Condaveed; Acoolamannaud; Tundoor; Sakhinedapully; Rameswaram; Ganganapully; Antarvedhy.	Kistna.
1763	Chingleput	Greater portion.
1768	Chicacole, Rajahmundry, Ellore, Moostafanugger, and Moortizanugger Circars.	Northern Circars.
1778	Nagore	Tanjore.
1781	Sadras	Chingleput.
1781	Bimlipatam	Vizagapatam.
1781	Juggannaudapooram and Palcole.	Godavery.
1781	Tuticorin	Tinnevelly.
1781	Negapatam	Tanjore.
1792	... ...	Present Malabar District (except Cochin and Wynaud).
1792	Dindigul and Pulney Talooks	Madura.
1792	... ...	Present Salem District (except Oossoor Talook).
1792	Cungoondy Talook ...	North Arcot.
1795	Cochin City and Tungacherry.	Malabar.
1799	South Canara	......
1799	Coimbatore	......
1799	Neilgherry Hills	Except South-East Wynaud.
1799	Oossoor Talook	Salem.
1799	Vencatagherrycottah Talook.	North Arcot.
1799	Poonganore Talook ...	One-third, North Arcot.
1799	Tanjore	Greater portion.
1800	Bellary	......
1800	Cuddapah	......
1800	Bunganapully	......
1800	Kurnool	......
1801	Carnatic	Present Nellore District, North Arcot (except Cungoondy and Poonganore); South Arcot, Trichinopoly, Madura (except Dindigul and Pulney Talooks) and Tinnevelly; also the feudatory state of Poodoocottah.
1801	Payeen Ghaut	......
1803	Ooddantapooram ...	Bellary.
1803	Poonganore	Two-thirds, North Arcot.
1803	Wynaud	Part in Malabar, part in Neilgherries.
1803	Goodicottah	Bellary.
1818	Sundoor	......
1845	Tranquebar	Tanjore.
1856	Tanjore Fort	Tanjore.
1860	Bhadrachellam and Rekapully Talooks.	Godavery.

RELATIONS WITH FOREIGN EUROPEAN POWERS.

1. FOREIGN TERRITORY WITHIN THE PRESIDENCY.—The Dutch [2] have had no settlements within the Presidency since 1825, and the Danes [3] none since 1845. The Portuguese settlement of Goa [1] ceased to be within the limits of this

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[1] SKETCH HISTORY OF CONNECTION OF THE PORTUGUESE WITH THIS PRESIDENCY.—*Vasco da Gama.*—The exploration of the ocean route to India was first systematically undertaken by the Portuguese, the moving spirit at the commencement being Prince Henry (1394–1460), the fourth son of King John of Portugal. These investigations were gradually extended along the western coast of Africa, and in 1487 Bartholomew Diaz discovered the Cape of Good Hope, called by him "Cabo Tormentoso" or Cape of Storms. The name was afterwards changed by the King of Portugal into "Cabo Bona Esperanza." In October 1492 Columbus, under the impression that India could be reached by sailing to the west, discovered America. In May 1498 Vasco da Gama having rounded the cape reached Calicut, and obtained from the Hindoo Zamorin the privilege to trade. Another Portuguese named Covilham had previously reached Calicut overland, about 1487. After staying six months on the west coast, Vasco da Gama returned to Europe with a letter from the Zamorin to the King of Portugal, reaching Lisbon in September 1499. In 1500 Cabral, after discovering by accident the Brazils, made the second visit to Calicut, where by permission he built a factory. Having quarrelled with the Zamorin however, the factory was pillaged and burnt, 50 Portuguese being killed. Cabral in retaliation burnt fifteen native ships and commanded Calicut for two days; he then sailed on to Cochin, where he established a factory. He also visited Cranganore and Cannanore. In 1501, four Portuguese ships under De Nova arrived at Calicut and sank the Zamorin's fleet. In 1502 the King of Portugal obtained from the Pope a bull constituting him "Lord of the navigation, conquests, and trade of Ethiopia, Arabia, Persia, and India." In consequence of this Vasco da Gama commanded a third powerful expedition to the west coast of India, and on this occasion entered into alliance with the Cochin Rajah against his master, the Zamorin of Calicut. A siege of Cochin by native troops proved for the first time the great superiority of European soldiery. In 1503 Francisco de Albuquerque, brother of the great Albuquerque, found the King of Cochin besieged by the Zamorin, and compelled the latter to sue for terms. He then built a fort at Calicut, established factories at Quilon and St. Thomé, and set sail for Europe; but he was lost at sea. The first Portuguese Governor and Viceroy of India was Francisco de Almeida in 1505. He reduced Honore and built a fort at Cannanore. His son in 1507 accidentally discovered the island of Ceylon. During this time the Mahomedans, who though not in possession of political power on the west coast had extensive commercial dealings with it, had done their best to expel the intruders, and they were assisted in this by the Venetians, who purchased Indian spices and other goods from the Arabs for the supply of the European markets. (2) *Alfonso de Albuquerque.*—The Caliph of Egypt in 1509 sent a fleet to the coast of India, which defeated a Portuguese squadron, but was afterwards totally destroyed in an engagement off Dew, and in 1510 Alfonso de Albuquerque (who had succeeded Almeida as governor in 1509) laid the foundation of the future supremacy of the Portuguese by reducing Goa, which eventually became the seat of government, and was erected into an Archbishop's see by the Pope. This was the commencement of territorial acquisition by European powers in India. Albuquerque followed up this success by capturing Malacca and opening trade with Siam. In 1513 Albuquerque made an unsuccessful attempt upon Aden, from which place he proceeded up the Red Sea, which was then for the first time entered by a Portuguese fleet. He died at Goa in 1515. In 1517 Albuquerque's successor, Soarez, personally led an expedition against Colombo, and forced the king to pay an annual tribute of cinnamon. In 1518 the Portuguese first opened trade with Bengal. Vasco da Gama came out to India again in 1524 as Viceroy and died at Cochin in 1527. In 1538 the Turks made an unsuccessful attempt upon Dew, but on their return to the Red Sea they succeeded in expelling the Portuguese from Aden. In 1543, during the governorship of Martin Alfonso, the two provinces of Salsette and Bardes were ceded to the Portuguese by Ibrahim Adil Shah, who afterwards failed in an attempt to recover them. To provide against future invasions, the eastern part of the island of Goa was protected by means of a wall. In 1558 Don Constantine Braganza, one of the Portuguese royal family, was appointed Viceroy in India, but he effected little beyond building a fortress at Daman and another at Manaar. In 1567, owing to the oppression exercised by the Portuguese, the princes of Western India formed a league against them, but were easily defeated. In 1570 Ally Adil Shah besieged the city with an army of 100,000 men, but was repulsed after a siege of ten months. In the same year a fort was built at Dew. (3) *Progress of the Portuguese.*—The efforts of Albuquerque's successors were principally directed to checking the progress of the Turks, who after the conquest of Egypt made several attempts to establish themselves on the coast of Malabar. In about sixty years from their first arrival at the beginning of the century the Portuguese had established an empire in the East, whose extent and power were quite without precedent. Their authority extended as far as the utmost limits of the coast of Persia, and over all the islands in the Persian Gulf. Some of the Arabian princes were their tributaries, others their allies, and through the whole Arabian peninsula none dared to confess themselves their enemies. In the Red Sea they were the only power that commanded respect, and they had considerable influence over the Emperor of Abyssinia and the rulers of Eastern Africa. They possessed the whole coast of Malabar, from Cape Ramas to Cape Comorin, and were masters also of the Coromandel coast, the Bay of Bengal, the city, fortress, and peninsula of Malacca. The islands of Ceylon, Sumatra, and Java paid them tribute, as did the Moluccas, and they had obtained a settlement in China at Macao, and had free trade with the islands of Japan. (4) *Decline of Portuguese supremacy.*—The ruin of this empire arose chiefly from the union of Portugal with Spain under Philip II of Spain in 1580, in consequence of which the interests of Portugal in Asia were thenceforth subordinated to the European interests of Spain. In 1640 Portugal again became a separate kingdom, but in the interval the Dutch and English had appeared on the scene, and the Portuguese did not recover their former supremacy. Already in 1603 and 1639 the Dutch had blockaded Goa, and during the next sixty years there was a continual struggle between the two nations, during which the Portuguese possessions were captured one by one, and by 1664 all the Portuguese early settlements in Malabar had fallen into the hands of the Dutch, while St. Thomé on the east coast was taken in 1669. The Canara settlements of the Portuguese at Mangalore, Barcalore, and Honore were captured in 1653 by Sivappa Naick, Rajah of Bednore, with whom they entered into a treaty in 1671, under which they established factories at Barcalore and Mangalore, and seven years later they established another factory at Calyaunpore. In 1683 Goa was nearly captured by Sumbhajee, who, however, was forced to retreat by the appearance of a Moghul force. Subsequently the Bhonslays of Sawunt Waree invaded the Goa territory, but were eventually defeated. In 1713 the Portuguese quarrelled with the Rajah of Bednore, whom they brought to terms by burning Barcalore and Calyaunpore, and in 1714 a treaty was executed, conferring considerable powers on the Portuguese factor and vicar at Mangalore, and authorizing them to build churches wherever there were Christians. This treaty remained in force until the Bednore kingdom was conquered by Hyder in 1763. In 1741 Goa was again threatened by the Mahrattas and Bhonslays, but was saved by the arrival of a new viceroy, the Marquis of Lourical, with an army of 12,000 men. In 1750 the same enemies jointly attacked and closely invested the fortress of Neutim, but were compelled to raise the siege. Subsequently the Portuguese obtained possession of Ponda, Bicholim, Sanquelim or Satary, Alorna, and Pernem. The old town of Goa was now in such a state of decay that the population removed to Panjim or New Goa, at the mouth of the river Mandavy. From 1794 to 1815 the government of Goa received little attention from Portugal owing to the European wars. In 1817 an inroad of the Bhonslays was repelled. In 1835 a native of the place named Bernardo Peres da Silva was appointed governor, but the reforms instituted by him ended in an insurrection, and he had to fly to Bombay. In 1871 a mutiny broke out among the native troops at Goa, to suppress which the Court of Lisbon sent a reinforcement, accompanied by the king's brother, Don Augusto. After the suppression of this mutiny the native regiments were

Presidency when the North Canara district was transferred to Bombay in 1860. Since 1860 the only foreign European settlements have been those still subsisting,

disbanded, and the colony is now held by 300 or so of Portuguese soldiers. The Portuguese power in Southern India was practically at an end before British interests of any importance had arisen near their settlements, and the two nations never came into conflict there. The most important relic of their ascendency in the south is the presence of over 50,000 Roman Catholic Christians in the district of South Canara, many of them being the descendants of high-caste Hindoos, converted by the proselytizing ardour of the early Portuguese Government. Their numbers would be much larger but for the wholesale deportation by Tippoo of as many as 30,000 Christians, of whom not more than 3,000 lived to return to Canara when the British took possession in 1799. The present Portuguese possessions in India are Goa, Daman, and Dew, all on the west coast. These were included in the Madras Presidency till the transfer of the district of North Canara to Bombay in 1861. (5) *Portuguese possessions in the East at different times.*—The Portuguese have at different times possessed the following places in the East:—"a" On the east coast of Africa: Melinda, Quiloa, Querimba, Sofala, Mozambique, and Mombas; "b" in Arabia: Aden and Muscat; "c" in Persia: Bussorah and Ormuz; "d" in India: Diul and Tatta on the Indus, Bandel, Dew, Daman, Assarim, Danu, St. Genes, Agaciam, Chaoul, Dabul, Bassein, Salsette, Mahim, Bombay, Tannah, Caranja, Goa, Honore, Barcalore, Mangalore, Cannanore, Calicut, Cranganore, Cochin, Quilon, Negapatam, Maliapore, St. Thomé, Masulipatam, and several other places on the Coromandel Coast and in Bengal; "e" in Ceylon: Manaar, Point de Galle, Colombo, Jaffnapatam, and other places; "f" in further India: Malacca and factories at Pegu, Martaban, Junkceylon, and other places; "g" in China: Macao and the island of Formosa; "h," in the Indian Archipelago: Magindana, the Moluccas, the Banda Islands, and other places. All these possessions were held in subordination to the Supreme Government at Goa, where the Viceroy presided over the civil and military, and an Archbishop over the ecclesiastical affairs of the whole of Portuguese Asia. The period of the highest development of their commerce was probably from 1590 to 1610.

[2] SKETCH HISTORY OF CONNECTION OF THE DUTCH WITH THIS PRESIDENCY.—*Attempts to discover a north-west passage.*—Immediately after the union of Portugal and Spain as above-mentioned, Philip II desirous of humbling the Portuguese, and incensed at the declaration of their independence by the Netherlands, forbade the merchants of Amsterdam to trade with Lisbon, and thus compelled the Dutch, whose subsistence almost wholly depended on the carrying-trade, to seek out means for the importation of Indian commodities other than what was offered through the Portuguese. When the supremacy of Spain at sea was shattered by the destruction of the Armada in 1588, the merchants of Antwerp, who had emigrated to Amsterdam, at once saw their opportunity for establishing a direct trade with India. At first in order to avoid interference with the Portuguese rights under the Papal bull of 1492-93, they followed the example of the English, and attempted to open communications with the East by sailing round the north coasts of Europe and Asia. William Barents made a first abortive attempt in 1594, a second in 1595, and a third in which he perished in 1596. (2) *Cornelius Houtman.*—In the meantime Cornelius Houtman, who had been made prisoner by the Spaniards at Lisbon, obtained such information from the Portuguese respecting the course of their voyages round the Cape of Good Hope, that on his escape to Amsterdam he induced some of the leading merchants to form a company for sending him out with an expedition, and a well provided fleet sailed from the Texel in 1595, which reached Sumatra after a voyage of seventeen months. Another expedition had already been sent out under James Van Neck, and Houtman (who had returned in 1597) took out a second expedition, which returned in 1600. In 1598 during this expedition Houtman himself was killed. Companies were now formed all over the United Provinces, which were amalgamated in 1602 into "The Dutch East India Company." The Spaniards attempted to defeat the enterprises of the Dutch by main force, but being soon convinced of their inferiority at sea, sent emissaries to the principal Eastern sovereigns, describing the new adventurers as pirates. However the Dutch admiral, Heemskirk, having captured a rich Portuguese vessel on her way to Macao, treated his prisoners with so much generosity that letters of thanks were addressed to him from the principal Spanish authorities in the East; these letters he produced as credentials in every port at which he touched. (3) *Contest with the Portuguese and English.*—In 1603 the Dutch, with a large force from Europe, made attempts to dislodge the Portuguese from Mozambique and Goa, in both of which they failed. They however succeeded during 1604-1605 in establishing factories on the Malabar and Coromandel Coasts, in Ceylon, and in Java at Jacatra and Bantam. In 1604 the Spaniards at Manilla captured the Dutch possessions in the Indian Archipelago, but the Dutch soon retrieved all these losses. In 1607 they are stated to have had factories at Mocha, at Cambay, in Malabar, Ceylon, Coromandel, Bengal, Arakan, Pegu, Sumatra, Java, Camboja, Siam, Cochin China, Tonquin China, and Japan; exclusive of the entire possession of the Moluccas, and the factories taken from the Portuguese in the Banda Islands. The Mauritius, first discovered by the Portuguese in 1505, had been occupied by the Dutch in 1598, and named after their stadtholder, Prince Maurice of Nassau. In 1611 they were driven out of Tidore and Banda by the Spaniards. In 1612 the King of Candy called in the Dutch to assist him against the Portuguese, and in return gave them the monopoly of the cinnamon trade of Ceylon. In this year also, they took Timor from the Portuguese. In 1614 they established factories at Masulipatam and in Siam, and in 1619 acquired the sovereignty of Java, after a struggle with the English, and immediately secured their acquisition by building the city of Batavia. Soon afterwards, in 1622, all the English merchants resident at Amboyna were executed on the ground that they had conspired to seize the castle, and by this act the Dutch succeeded in securing for a long time the monopoly of the spice trade. The period from this date up till 1661 was one of humiliation for England in the Indian seas. The Dutch next took the Japanese trade from the Portuguese, and continued for long to be the only Europeans admitted to trade with the empire of Japan. (4) *Expulsion of the Portuguese from most of their possessions.*—In the Eastern Archipelago the Dutch gradually expelled the Portuguese from almost all their territorial possessions. In 1635 they took Formosa, and in 1640 Malacca, a fatal blow to the Portuguese trade in the Indian Archipelago. They then turned their attention more particularly to India. In 1647 they were trading at Sadras on the Palaur river, and in 1652 they built a factory at Palacolloo in the Godavery district. In 1656 they obtained possession of Calicut from the Portuguese. They captured, in 1658, Negapatam and Jaffnapatam, the last Portuguese possession in Ceylon, and in 1664 all the earlier Portuguese settlements on the coast of Malabar; in 1669 they expelled the Portuguese from St. Thomé. The following is a list of their settlements and agencies, submitted by the Dutch Company to the States-General in October 1664:—Amboyna; the Banda Islands; Pulo Roon; Ternate and other Moluccas; Maccassar and Manado in Celebes; Timor; Bima on Sambawa; in Sumatra, Jambee, Palembang, and Indraghiry; Malacca; Tennasserim; Junkceylon; and factories in Tonquin, Arakan, and Pegu at Ava and Sirian. Factories in India; on the Coromandel Coast at Poolicat, Negapatam, and Masulipatam; in Bengal, at Hooghly, Cossimbazaar, Dacca, and Patna; in Orissa, a factory unspecified; on the Malabar Coast, at Cochin, Cranganore, Quilon, and Cannanore; in Goozerat at Surat and Ahmedabad; in Ceylon, Colombo, Point de Galle, Negomba, Manaar, Jaffnapatam, and Tuticorin; in Persia, Gambroon and Ispahan; in the Persian Gulf, Bassorah; the Island of Mauritius; the Cape of Good Hope; Java; also some trading stations in Japan. (5) *Decline of the Dutch power.*—In 1758 Clive captured the Dutch settlement at Chinsurah near Calcutta. As other European nations began gradually to obtain a share in the spice trade, the Dutch East India Company found the profits of its monopoly rapidly diminishing. During the wars of the French revolution all the Dutch colonies in the East were occupied by the English, but some of them were restored at the general peace. England kept the two of greatest importance, the Cape of Good Hope and the Island of Ceylon; but Holland was again put in possession of the islands of Java and Sumatra, and the monopoly of the trade with Japan in 1825. At present the Dutch have no possessions whatever in India. The name of the Palk's Strait commemorates a Dutch Governor. The latest Dutch possession in the Presidency was the town of Sadras, which remained in their hands till 1824. Palacolloo was transferred to the English in 1804, while Negapatam was captured in 1781 and formally ceded in 1799. The present possessions of the Dutch in the Indian Archipelago are Bencoolen and Palembang in Sumatra, and the islands of Banca and Billiton off its coast, the islands of Java, Madura, Bally, Lombook, and Celebes, parts of Borneo, the Moluccas or "Spice Islands,"

namely the French settlements [4] of Pondicherry in South Arcot, Caricaul in Tanjore, Yanam in the Godavery, and Mahé in Malabar. Between 1819 and 1834

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the islands of Timor and Sambawa, and districts on the western side of New Guinea. It may be said that the Dutch lost their supremacy in the East through the exclusive spirit in which they conducted their operations. Although their enterprise ended in the formation of an empire, their sole object from the first was to engross the spice trade of the Moluccas and Banda Islands. With this object they made the mistake, in which they long persisted, of establishing the seat of government in the remote island of Amboyna. It was fortunate for England that the early opposition of the Dutch at Bantam and Amboyna led the English Company to transfer their seat of government from the Indian Archipelago to the continent of India.

[3] SKETCH HISTORY OF CONNECTION OF THE DANES WITH THIS PRESIDENCY.—*Settlement at Tranquebar.*—In 1612 an association was formed at Copenhagen for opening a trade with the East Indies in emulation of the operations of neighbouring nations. About 1620 a Danish ship was wrecked on the Tanjore coast, and all the crew who escaped on shore were murdered. The captain however, by name Roelant Crape, escaped and was hospitably received by the Rajah of Tanjore, from whom he received permission to establish a settlement at Tranquebar. Many circumstances contributed to check the prosperity of the Danish East India Company, but none more than the pertinacious jealousy of the Dutch, who excluded them from the most profitable branches of trade. The political importance of Tranquebar was always insignificant, and it does not seem to have been at any time capable of defending itself. In 1760 it bought off Hyder Ally, who again in 1781 exacted a fine of £14,000 from the Danes for having supplied arms to the Nawab of Arcot, and in 1801, 1808, and 1815 it surrendered to the English without a struggle. After the last capture it was again restored and finally bought by the English in 1845, at the same time as Serampore in Bengal, and a piece of ground at Balasore for £125,000, and since that time has formed part of the Tanjore district. (2) *First Protestant Missions.*—Tranquebar is best known as 'the cradle and mother' of the Protestant missions in India, in connection with which the most famous names are Ziegenbalg and Plutschau (the first missionaries, 1706), Schultze (1725), and Swartz (1750—1798). The last was the founder of the now flourishing English missions in Trichinopoly, Tanjore, and Tinnevelly. At the commencement of this missionary work, there was considerable dissension between the Danish Government of the settlement and the missionaries. The latter were appointed directly by the Home Government, and so formed an 'imperium in imperio.' The Tranquebar mission was formally handed over to the Lutheran mission in 1847.

[4] SKETCH HISTORY OF CONNECTION OF THE FRENCH WITH THIS PRESIDENCY.—*First attempts at Eastern trade.*—The first attempt made by the French to trade to the Indies, under the sanction of their government, was in 1537, in the reign of Francis I. This was unsuccessful. Another attempt was made in 1578, by Henry III, which also failed. In 1604 Henry IV granted the first exclusive charter to a company for fifteen years, which in 1611 was extended by Louis XIII to a further period of twelve years. In 1615 letters patent were granted to this company, empowering them to fit out ships, and about the same time they obtained possession of their first settlement in the East at Madagascar. In 1643 Louis XIV granted the company another charter. In 1664 the same monarch granted a charter to a fourth company, founded on the schemes of the celebrated minister Colbert. This scheme was as follows. A fund of Rupees 60,00,000 was to be employed in fitting out twelve or fourteen ships of from 800 to 1,000 tons each, in order to establish the colony at Madagascar. Of this sum it was proposed that the king should furnish one-tenth, and that the nobility should be invited to subscribe according to their inclinations. The company was to be exempted from half the duties upon all goods exported from, or imported into, the East Indies, and His Majesty was to take upon himself all the loss which might arise for the first eight or ten years. Private individuals were to be allowed to subscribe in such proportions as they liked; and foreigners subscribing 10,000 livres were thereby to acquire the right of naturalization, and in the event of a rupture with the State to which such foreigners might belong, their effects were on no account to be confiscated, or themselves to be in any way molested. This plan, it will be seen, held out inducements to adventurers; but although the new French Company carried on a considerable trade for some years, it was unable to obtain a permanent footing. It was found that Madagascar was not so fertile as had been expected, while the natives were extremely hostile; and finally in 1672 that island was abandoned, and the uninhabited island of Bourbon and the larger and inhabited island of Mauritius were taken possession of in lieu of it. (2) *Factories established in India.*—Meanwhile in 1668, two persons named Macara and Caron established factories at Surat and Golcondah in India, on account of the company. In 1672 the French captured St. Thomé from the Dutch, who however recovered it in 1674. Most of the surviving French then returned to Surat, but about sixty of them, headed by Martin, the earliest of the French colonists and a man of remarkable energy, proceeded in April 1674 to a grant of land on the Coromandel coast which they had obtained from the native prince. Here they laid the foundation of the town of Pondicherry, which they were permitted to fortify. Three years later Pondicherry was threatened by Sivajee in his southern expedition, but was saved by the tact of Martin. War broke out at length between Holland and France, and the Dutch envious of the prosperity of Pondicherry sent a fleet of nineteen vessels against it. Martin was obliged to capitulate, and all hope of establishing French power on that coast appeared to have gone. The Dutch improved the fortifications and rendered it one of the strongest fortresses in India, but four years after were forced to restore it by the treaty of Ryswick. Martin then strengthened the works and attracted native settlers; and on the spot which he had occupied thirty-two years before with sixty European settlers, there had grown up at the period of his death an imposing town with 40,000 inhabitants. (3) *Operations in Siam.*—In 1683 died Colbert, the great patron of the French Company; and as no one else entered into the affair with his zeal and intelligence, the company gradually dwindled into insignificance. In 1686 the ambition of Louis XIV led him to attempt a permanent establishment in the East Indies, and he fixed upon Siam as the place in which this was most likely to succeed. The determination was brought about through the intrigues of Constantine Phaulcon, a Greek. This man after having served for some years in a minor situation in the British navy left it, and settling in Siam by his shrewdness became the favourite of the king, who necessarily threw all affairs with foreign states into his hands. Phaulcon wishing to strengthen his connection despatched ambassadors to France. These made the voyage in an English ship, and on their way went to London, where they executed a treaty with the English Government. French ambassadors returned with them, accompanied by some Jesuits whose object it was to convert the King of Siam to Christianity. The consequence of these reciprocal embassies was that the French were admitted to garrison Bangkok, the principal place in Siam, and missionaries and troops were sent to Siam for this purpose. The French however were subsequently expelled from Siam. In 1676 Chandernagore was obtained by the French and fortified in 1688. In 1687 an edict was passed, prohibiting the importation into France of silk brocades, painted cotton, &c., from India. This was the final blow dealt to the French East India Company, from which it never recovered. The charter of the company was cancelled in 1719, and it was absorbed in the schemes of Law, the promoter of the Mississipi adventure. On the collapse of Law's project, the company was reorganised as a commercial association and Pondicherry gradually recovered its prosperity. (4) *The governorship of M. Dumas at Pondicherry.*—M. Dumas was appointed Governor of Pondicherry in 1735. He gave shelter to Sufder Jung and Chunda Sahib, the son and son-in-law of Dost Ally, Nawab of the Carnatic, who had been defeated and killed by Raghojee Bhonslay, Rajah of Berar. The latter then advanced on Pondicherry, but owing to the strength of the place and the resolute bearing of Dumas, retired without attacking it. In 1725 the French obtained possession of Mahé on the Malabar Coast through the skill and bravery of Labourdonnais. In 1739 Caricaul was captured at the instigation of Chunda Sahib, and afterwards formally ceded by Pertaub Sing of Tanjore. (5) *Commencement of the governorship of Dupleix.*—Dumas was succeeded in 1742 by Dupleix, a man of extraordinary genius and one of the most illustrious statesmen in the annals of India. He was born in 1695 and went to India in 1715. In 1730 he was appointed Intendant of Chandernagore on the banks of the Hooghly, where a French factory had been established in 1676. This under his government became in the course of ten years one of the most opulent European factories in Bengal. He was appointed to the government of Pondicherry in

the Madras Government were represented on the Coromandel Coast by a general Special Agent. The head-quarters of this officer were at Cuddalore, and his duties consisted in being the medium of communication between the Madras Government on the one side, and on the other side the Dutch Government at Sadras, the Danish Government at Tranquebar, and the French Government at Pondicherry. In 1834, what remained of the Special Agent's duties were transferred to the Collector of South Arcot.

October 1741, and by a display of magnificence dazzled the princes and people of the Deccan, and augmented the reputation of French power. Hearing from France that war with England was imminent, and finding that he had very few troops at his disposal, he prevailed upon Anwar-ood-deen, Nawab of the Carnatic to lay an injunction on the Governor of Madras to abstain from any aggression on the French settlement. The governor considered it prudent to obey the order. The anxieties of Dupleix were likewise relieved by the arrival of Labourdonnais with a powerful French fleet. Labourdonnais was born in 1699 at St. Malo. After several voyages to India he settled down in Pondicherry, where he soon became distinguished for his talents. He returned home in 1733 and in 1735 was appointed Governor of the Mauritius and Bourbon, which islands he raised by his energy and ability to a state of the greatest prosperity. On the commencement of war between England and France, Labourdonnais was appointed to the command of the French fleet sent out to India, where he arrived in 1746. (6) *Capture of Madras by the French.*—The English and French fleets met in July 1746 off Negapatam. The action was indecisive, but the English admiral, on the plea that one of his ships stood in need of repairs, sailed away to the south and left Madras which he had been sent out to protect at the mercy of the French. The fortifications of Madras, which had never been very substantial, were now dilapidated; and of the small garrison of two hundred Europeans few had ever seen a shot fired. Against this defenceless town Labourdonnais advanced with a large fleet, 1,100 European troops, and 800 Native sepoys and Africans. The president, after a show of resistance, surrendered it, and Labourdonnais, who acted on his own responsibility, held it at ransom for a sum of about sixty lakhs of rupees. Dupleix however maintained that as long as the English held possession of the settlement, Pondicherry could not be expected to flourish, and said that he was determined to extinguish all English interests on the coast; he consequently cancelled the convention. Meanwhile the monsoon set in with exceptional violence, and the French fleet suffered to such an extent as to oblige Labourdonnais to return to the islands to refit. Dupleix then conveyed all the European officers prisoners to Pondicherry, where they were treated with the greatest courtesy and consideration. Some of the English made their escape to Fort St. David, among them Robert Clive, then a young writer. Labourdonnais meanwhile proceeded with his fleet towards France, but finding at Martinique that his way was barred by English cruisers, he took passage in a Dutch ship under a feigned name. This ship was captured by an English vessel, and Labourdonnais being recognized became a prisoner of war. In England his reception was extremely favourable, and he was allowed to go to France on parole. Here however he was followed by the accusations of Dupleix and others, and was thrown into the Bastile, where he lingered for three years. Though released when the charges against him were subsequently disproved, he died of a broken heart in 1753. (7) *Collision between the French and the Nawab of the Carnatic.*—On the approach of the French armament, the President of Madras, had in his turn appealed to the Nawab of the Carnatic, as Dupleix had done; and had prevailed on him to prohibit any attack on the town. Dupleix found little difficulty in persuading the nawab to withdraw the injunction by promising to make over the settlement to him when it was captured, but after he had obtained possession of Madras he refused to fulfil his agreement. The nawab in consequence sent an army of 10,000 men to drive the French from Madras. These were easily repulsed. Dupleix, on hearing of the investment of the town, despatched from Pondicherry a reinforcement consisting of 230 Europeans and 700 sepoys, which met the nawab's army at St. Thomé about four miles from Madras, and easily defeated it. This engagement, although small in comparison with others, may be considered one of the most important and decisive battles in India. For the first time it gave the European settlers confidence in their own strength, and taught them to disregard disparity of numbers. Madras remained in the possession of the French from September 1746 till August 1749 when it was restored under the treaty of Aix-la-Chapelle. (8) *Siege of Pondicherry by the English.*—Dupleix, after the capture of Madras, sent an expedition against Fort St. David; but it was defended by Major Stringer Lawrence, and the French were obliged to retire after four unsuccessful assaults. Soon afterwards Admiral Boscawen arrived off the coast with a large fleet and a reinforcement of troops. Boscawen was the grand-nephew of the famous Marlborough. When it was decided in England to make a great effort against the French in India, this officer was chosen for the double command of the navy and army. As soon as he arrived in India he determined to retaliate on the French by the capture of Pondicherry. However after having invested it for fifty days with the largest European force, little short of 4,000 men, which had ever yet been assembled in India, the admiral was obliged to raise the siege; and meanwhile he had lost one-fourth of his troops. Immediately after this event, the peace of Aix-la-Chapelle in Europe restored Madras to the English. (9) *Capture of Tanjore by the English.*—The next military operation on the part of the English was the capture of Tanjore in 1749, on behalf of the deposed prince Sahojee; his cause however was found to be so unpopular that the English finally came to an accommodation with Pertaub Sing, the prince then on the throne, who ceded Devicottah to them. (10) *Projects of Dupleix.*—Dupleix aimed at a higher object than the acquisition of an insignificant town and a few miles of territory on the coast and determined to erect a French empire in India. Chunda Sahib, the most enterprising prince in the Deccan, had been deprived of the important town of Trichinopoly by the Mahrattas, and carried away prisoner to Sattara in 1741. He was exceedingly popular throughout the Carnatic, and Dupleix conceived that his plans would be promoted by making him nawab in the room of Anwar-ood-deen, whose government was disliked. He therefore obtained his liberation by the payment of a ransom of seven lakhs of rupees, and Chunda Sahib collecting a body of 6,000 men advanced towards the borders of the Carnatic. Just at this period (1748) Nizam ool moolk, the Soobahdar of the Deccan, and the founder of the kingdom of Hyderabad, died, and the affairs of the Deccan were thereby thrown into a state of confusion which facilitated the projects of the French governor. Of the five sons of the Nizam, Nazir Jung obtained possession of the treasury, bought over the chiefs in the army and state, and proclaimed himself soobahdar. But there was also a grandson of the Nizam, Mozuffer Jung, the son of his daughter, whom he had destined for the succession, and in whose favour he had obtained a firmaun from the Emperor of Delhi. This person lost no time in collecting an army to assert his claim to the throne, and was joined by Chunda Sahib, to whom he promised the nawabship of the Carnatic. The French at once embarked in the cause, and a force was despatched to his aid under the command of Bussy, the ablest officer in the French service. The confederates encountered the army of Anwar-ood-deen who held by Nazir Jung at Amboor; he was completely defeated, and fell in action, and his son, Mahomed Ally, fled to Trichinopoly, where the treasures of the state were deposited. Mozuffer marched the next day to Arcot, assumed the state and title of Soobahdar of the Deccan, and conferred the government of the Carnatic on Chunda Sahib. He then proceeded to Pondicherry and rewarded Dupleix by the grant of eighty-one villages. (11) *Opposition between the English and French in the affairs of the Carnatic.*—Mahomed Ally finding that he could not hold Trichinopoly, sought at length the aid of the President of Madras, who sent a small detachment of 120 men to support him. Meanwhile, Nazir Jung assembled an army of 300,000 men, of whom one-half were cavalry, with 800 pieces of cannon, and marched in search of the confederates. At Valathavoor, about fifteen miles from Pondicherry, he was joined by Major Lawrence with 600 Europeans, while Dupleix augmented the contingent with Mozuffer to 2,000 bayonets. On the eve of the engagement, thirteen of the French officers refused to fight, and the force becoming demoralised fled to Pondicherry. Chunda Sahib joined in the retreat, but Mozuffer determined to throw himself on the mercy of his uncle, Nazir Jung, who took an oath to protect him, and then loaded him with irons. Nazir Jung, now again master

2. Pondicherry being at the present date the centre of government for all the French settlements in India and Indo-China, matters of importance are negotiated through the Collector of South Arcot. Minor matters however at the outlying stations of Caricaul, Yanam, and Mahé are dealt with by the Collectors at those places, without reference to Pondicherry. The relations between the Pondicherry Government and the Madras Government are regulated by articles 8, 12, and 14 of the European Treaty of 1814; by the European Convention of 1815; and by two subsidiary and local conventions, dated 1818 and 1837. Under the treaty of 1814 the French engaged to erect no fortifications on the continent of India, and

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of the Deccan, appointed Mahomed Ally as Nawab of the Carnatic. Dupleix's plans were apparently demolished by this blow, but never did the fertility of his genius appear in a more conspicuous manner. He sent envoys to treat with Nazir Jung, and they discovered that that prince's three Pathaun feudatories of Kurnool, Cuddapah, and Savanoor, were ready to revolt. Dupleix opened a correspondence with them, and, at the same time, to intimidate the soobahdar into a compliance with his terms, sent an expedition to Masulipatam, which occupied the town and district. He attacked and defeated the force of Mahomed Ally, the remnant of which sought refuge in the renowned fort of Jinjee. It was immediately attacked by Bussy, and captured within twenty-four hours, though the armies of Aurungzeeb had besieged it for nine years. This was the first instance in which a European force had attacked a fortress considered impregnable, and its success spread a feeling of dismay through the Deccan. (12) *Success of Dupleix and Bussy.*—These successes forced Nazir Jung to concede all Dupleix's demands; that the town and district of Masulipatam should be made over to him, Mozuffer Jung released, and Chunda Sahib installed Nawab of the Carnatic. The soobahdar concluded a treaty on these terms with Dupleix, but the latter had previously come to an understanding with the three mutinous Pathaun nawabs, and had directed Bussy to attack the army of the soobahdar as soon as he received a requisition from them. Bussy as yet ignorant of the settlement which Dupleix had made with Nazir Jung was called upon to assail him by the Pathaun chiefs. He accordingly marched with 800 Europeans and 3,000 sepoys, and ten guns against the soobahdar's army, which he found stretched over eighteen miles of ground, and obtained a complete victory. As the nawabs were moving off to join the French, Nazir Jung rode up to reproach them and was killed by the Nawab of Cuddapah. This happened in 1750. (13) *Mozuffer Jung as Soobahdar of the Deccan.*—Mozuffer Jung was then proclaimed soobahdar of the Deccan, and proceeded in company with Chunda Sahib to Pondicherry to express his obligations to Dupleix, and to make a suitable return for his aid by conferring on him the title of governor of all the country lying between the Kistna and Cape Comorin. Within three weeks however the turbulent Pathaun nawabs, who had conspired against Nazir Jung, entered into a conspiracy against his successor. Their troops were speedily dispersed by Bussy, but Mozuffer Jung while pursuing them was killed. Bussy immediately assembled the officers and ministers, and prevailed on them to assent to his proposal of raising Salaubut Jung, the brother of Nazir Jung, to the vacant dignity. The camp then moved forward, and in due course reached Aurungabad, then the capital of the Nizam. Dupleix had now attained the summit of his ambition. The soobahdar reigned over the northern division of the Deccan, but it was virtually ruled by a French general, whose authority was supreme. South of the Kistna the whole country was under the sway of Dupleix and all its resources were entirely subservient to his interests. (14) *Operations at Trichinopoly and Arcot.*—Meanwhile in the Carnatic, the French and English were employed for four years in a struggle for the possession of Trichinopoly, which they both considered essential to the control of the country. It was held by Mahomed Ally, with the aid of a small body of English troops, against which Dupleix sent a strong detachment under Law, the nephew of the famous South Sea financier. It was on this occasion that the military genius of Clive, the founder of the British empire in India, was first developed. The son of a private country gentleman, he came out to India in 1744, in the civil service of the East India Company. Two years after, he was in Madras when it surrendered to Labourdonnais, and made his escape to Fort St. David, where he exchanged the pen for the sword and took part in the defence of the fort. He was present at the abortive siege of Pondicherry by Admiral Boscawen, and took part in the assault on Devicottah, where he attracted the admiration of Major Lawrence. He was attached to the force which the President of Madras, Mr. Saunders, despatched to the relief of the besieged garrison of Trichinopoly, and he perceived, by the instinct of his military genius, that it must fall unless some diversion could be created in its favour. He accordingly returned to Fort St. David, and advised Mr. Saunders to sanction an expedition against Arcot, the capital of the Carnatic, which he was convinced would have the effect of drawing off a considerable portion of Chunda Sahib's army from Trichinopoly. This enterprise was sanctioned and entrusted to his direction, and he marched in August 1751 with 200 Europeans and 300 sepoys, and eight officers, of whom one-half were in the mercantile service and six had never been in action. They were allowed to enter the town, which was evacuated by its garrison of 1,100 men. As Clive had calculated, Chunda Sahib withdrew 10,000 men from Trichinopoly to recover it, in spite of the urgent representations of Dupleix, who was aware that the only policy for nullifying and defeating Clive's action was to push on the siege with vigour. The fort of Arcot was a mile in circumference, defended by a low and lightly built parapet and by towers, of which several were in a state of decay; and the ditch was dry and choked up. In the interval however before the arrival of Chunda Sahib's force Clive occupied himself in repairing the defences, and also made a night attack on the enemy's camp with success. Chunda's force then arrived and invested the town. During the siege, one of Clive's officers was killed and two wounded, and another had returned to Madras. The troops fit for duty were soon reduced to 120 Europeans and 200 sepoys, but with this handful of men he sustained for seven weeks the incessant assault of Chunda Sahib's force, aided by 150 French soldiers. This gallant defence led to an offer of help from Moraury Row, who appeared on the scene with a body of Mahratta horse. That event and the approach of reinforcements from Madras brought matters to a crisis, and the besiegers after a desperate final assault which lasted eighteen hours struck their tents and retreated. Clive followed up his success by defeating the French at Arnee, and capturing Conjeeveram, after which he returned to Fort St. David. (15) *Dupleix recalled.*—On his return from Arcot, Clive was employed in a variety of enterprises, in which he distinguished himself by the same energy and talent. After the French had besieged Trichinopoly in vain for a twelve-month, they were driven by the weakness of their commander Law into a position which obliged them to surrender at discretion with all their troops, stores, and ammunition. In the early part of the siege, Mahomed Ally had called in the aid of the Mahratta general, Moraury Row, of the regent of Mysore, and of the troops of the Rajah of Tanjore. Chunda Sahib, now reduced to extremity, surrendered himself to the Tanjore general, who caused him to be assassinated at the instigation of Mahomed Ally, Major Lawrence who might probably have saved him, declining to interfere. Unknown to Major Lawrence, Mahomed Ally had promised to make over the fortress of Trichinopoly, which it was important for the English to hold, to the Tanjore general. Mahomed Ally refused to fulfil the bargain, and the Tanjore troops joined the French in the siege, which Dupleix lost no time in renewing. The operations in and around this place continued with little interruption for two years, and at length Dupleix proposed the appointment of commissioners to arrange an accommodation; but the English agents, Mr. Vansittart and Mr. Palk, defeated the object by insisting, as an indispensable preliminary, that Mahomed Ally should be acknowledged Nawab of the Carnatic. To these terms, Dupleix could not be expected to agree and the operations of war were resumed, and continued with varied success till the 1st of August 1754, when Dupleix, was suddenly superseded by the arrival of a successor, and all his schemes of ambition were at once subverted. (16) *Treatment of Dupleix in France.*—Dupleix's successor Godeheu was a man of treacherous disposition. On his arrival at Pondicherry he spared no pains to degrade and ruin his predecessor, though the latter had befriended him on many previous occasions, and had once saved his life. The public accounts showed that twenty-five lakhs of rupees were due to Dupleix for sums he had advanced wherewith to carry on the government, from the fortune he had acquired before he assumed office; but Godeheu refused to allow these accounts to be audited. Dupleix had also been in the habit of

to keep in their establishments only such a number of troops as would be sufficient for police purposes. Under article 8 of the Convention of 1815 the English engaged that if at any time war should break out between France and England, neither the French civil officers nor the military force just mentioned should be treated as prisoners of war, but should be given three months to settle their affairs, and should be sent to France along with their families and personal property. Under article 9 of the same convention it was agreed that persons going over the frontiers for the purpose of absconding from justice, whether on the civil or criminal side, should be mutually restored on application being made by the respective Governments. By the tacit consent however of both the contracting powers, as shown in their subsequent Acts and Declarations, this provision has

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assisting the native allies with advances from his own purse on the security of certain districts, but Godeheu seized the districts, and farmed them out for the benefit of the company. Dupleix, dishonoured and beggared, left India in October 1754. On his arrival in Paris he was at first received with some show of distinction, but as soon as the Directors were assured that all differences had been adjusted in India, they treated him with hostility, and for ten years, to the day of his death, refused even to look into his accounts. He was pursued by creditors who had advanced money to government on his security, and during the last three months of his life his house was in the hands of the servants of the law. Three days before his death in November 1764, he wrote in his diary,—"I have sacrificed my youth and my fortune to enrich my country. I am treated as the vilest of mankind." Voltaire says of him "Il en mourut bientôt de chagrin." Thus died the second victim of the ingratitude of the French East India Company. Of those illustrious men who have established European supremacy in India, Dupleix stands among the very front rank. He was the pioneer of European conquest. It was he who showed how to govern native states by a handful of civil functionaries and a small body of European troops, and it was he who created a sepoy army. No Indian statesman has ever exhibited a more fertile political genius, and it is not improbable that, if he had remained in power in India for two or three years, with the two thousand European troops brought out by Godeheu he would, in conjunction with Bussy, have made the French as complete masters of the Deccan as the English became of Bengal and Behar two years after. (17) *Treaty between the French and English.*—Godeheu and Saunders, the Commissioner on the part of the East India Company, agreed upon an immediate suspension of arms, and in January 1755 concluded a convention which provided that the territories of the two companies should eventually be of equal value when the convention was ratified in Europe. Mahomed Ally was confirmed as Nawab of the Carnatic. Both parties bound themselves for ever "to renounce all Moorish government and dignity," and never to interfere in the affairs of the native princes. This treaty was altogether in favour of the English, and was not only damaging to French interests, but disgraceful to French honour. The prospects of peace however were at once dissipated by the proclamation of war between France and England in 1756, and hostilities in Southern India were prosecuted with greater vehemence than ever for five years. (18) *Bussy in the Deccan.*—To turn to the brilliant career of Bussy in the north of the Deccan. In military genius this general stands on a level with Clive, but was greatly his superior in the art of political organisation. For several years he had associated with natives of distinction, and had thus obtained a thorough knowledge of the native character. He also acquired the tact of managing them by the exercise of that wise accommodation to their feelings and habits, in which the French have always been more successful than the English. Having elevated Salaubut Jung to the throne, he conducted him to his capital; but his elder brother, Ghazee ood deen, who held a high position in the court of Delhi, had obtained a patent of appointment to the soobahdarry of the Deccan, and having gained over the Mahrattas by the promise of a large section of territory, commenced his march to the south. His ally, the Peshwa, with 40,000 horse advanced to encounter Salaubut Jung, laying the country waste on his march. Bussy, with a handful of Europeans and 2,000 sepoys and eight or ten field pieces, met and defeated the Mahrattas. This was the first time the Mahratta horse, the terror of the Deccan, had encountered a European force in the field, and the result of the conflict much increased the power and influence of Bussy. He followed up his success with spirit, vigorously pursued the Peshwa to within twenty miles of Poona, and forced him to sue for an accommodation. Meanwhile Ghazee ood deen was advancing from the north with 150,000 men. He was poisoned however by one of Nizam ool moolk's widows, and his troops dispersed. (19) *Plots against Bussy frustrated.*—The ascendency which Bussy had acquired at the court of the soobahdar had raised him many enemies, and the minister, though under great obligations to him, began to plot his destruction. At the beginning of 1753 he was obliged to resort to the sea-coast for the restoration of his health, and the minister having dispersed his European forces in small bodies over the country, and withheld their pay, entered into hostile correspondence with the President of Madras. One of his letters fell into the hands of Bussy, who determined to make an immediate effort, and marching 500 miles to Aurungabad unexpectedly presented himself at the court with 4,500 men, Europeans and natives. Not only was his ascendency immediately restored, but he was enabled to obtain from the fears of the soobahdar and his ministers a grant of the four Northern Circars. The French thus became master of the greatest dominion, both in extent and value, that had ever up to that time been possessed in India by Europeans, not excepting the Portuguese when at the height of their prosperity. (20) *Dismissal of Bussy by the Nizam and subsequent re-instatement.*—On his return from the coast, Bussy found the soobahdar resolved on an expedition to Mysore, the regent of which country was in alliance with the French authorities at Pondicherry, and had sent the flower of his army to co-operate with them in the siege of Trichinopoly. Bussy was thus placed in a serious dilemma, from which he was relieved only by his singular tact. He accompanied the soobahdar's army with 500 European troops, and assumed the command of the expedition. He then moved forward with rapidity, and, assuming the character of a mediator, made an arrangement by which the soobahdar agreed to abandon his designs on Mysore on payment of a sum of fifty-six lakhs of rupees. Soon after this the Nizam was induced by misrepresentation to summarily dismiss Bussy, who thereupon crossed the Kistna, and took up a fortified position near Hyderabad. The Nizam for two months vigorously assailed the encampment. Bussy defended himself with his usual skill, but his sepoys deserted him. He was at length released from danger by the arrival of reinforcements from the coast. Salaubut Jung then sued for a reconciliation, and within three months of his dismissal the authority of Bussy was more firmly established than ever. The zemindars in the Northern Circars took advantage of this season of embarrassment to revolt, and Bussy was obliged to give five months of unremitting attention to the settlement of the province. The incidental effect of these events on the fortunes of the English in India deserves particular notice. It was during this period that Clive re-captured Calcutta from Sooraj ood Dowlah, the Bengal soobahdar, who sent an urgent request to Bussy to advance to his aid in Bengal. Bussy was however detained by the necessity of regaining his power in his own province, and when the pacification there was complete, and he was prepared to move up through Orissa with a powerful body of troops, he heard that Chandernagore had already surrendered. His presence in Bengal before that even might have given a different turn to the battle of Plassey. (21) *Bussy recalled to Pondicherry.*—During the absence of Bussy Salaubut Jung was threatened with ruin by his minister, who had seized the fortress of Dowlatabad, and placed the authority of the state in the hands of Nizam Ally, one of the Nizam's brothers. Bussy however started from the coast with his army, and traversing a region never yet trodden by Europeans, reached Aurungabad, a distance of four hundred miles, in twenty-one days. His presence at once extinguished these conspiracies. The minister was killed in a tumult, Nizam Ally fled, and Dowlatabad was recovered. Lally meanwhile arrived in India in 1758 as Governor of the French possessions, and partly from caprice and partly from envy, ordered Bussy to quit the scene of his triumphs and return to Pondicherry with all his force. Bussy at once left the Deccan, his place being taken by M. de Conflans. From that time the ascendency of the French rapidly declined. (22) *Lally.*—Lally, a member of an Irish Roman Catholic family, which retired to France

been held to be in force only so far as it concerns criminal offences of a grave and non-political character; especially such crimes as are described as heinous under the Foreign Jurisdiction and Extradition Act No. XXI of 1879. There is at the present day no extradition of debtors. The Convention of 1815, as modified by that made locally in 1818, disposes of the salt question between the two Governments. Pondicherry agrees to make no salt for itself in any of its Indian settlements, but to take British-made salt at cost price, selling it to its own subjects at approximately the same factitious rate as that which prevails in British territory. The quantity of salt supplied by the British Government to the different settlements is supposed to be no more than suffices for the needs of the French population. In addition to the profit made on the sale of the salt so supplied, the French

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on the flight of James II, was a man of high military reputation. He was the son of Sir Gerard O'Lally, who had entered the service of France after the capture of Limerick in 1691. Young Lally served at Gerona and Barcelona, and distinguished himself in the French-Austrian war of 1734. His chief laurels however were gained at Fontenoy, and he also went over to England with Prince Charles Edward, and subsequently served in the Netherlands. When war broke out between France and England in 1756, he was considered the most fit man to command the large armament the French ministry was sending to India to establish French power. He landed at Pondicherry in April 1758, and marched at once against the English factory at Fort St. David which was surrendered within a month. The time was peculiarly favourable for the expulsion of the English from the Deccan. Madras was unfortified, its European force and its fleet were in Bengal, and the French commanded the sea and were paramount on land. Lally desired to attack Madras without delay; but he was prevented by the admiral, who refused the aid of his ships, and by the council of Pondicherry, who would not afford him any pecuniary assistance. Seven years before this time the Rajah of Tanjore, pressed by the demands of Mozuffer Jung and Chunda Sahib, had given them a bond for fifty-six lakhs of rupees, which was considered valueless, and made over to Dupleix. As a last resource, Lally resolved to supply his military chest by demanding payment of this bond. With the largest European and native force which had ever till then taken the field, he hurried on to Tanjore, levying forced contributions on the way, and at one place blowing six Brahmins from the guns. The town was besieged for a fortnight, and a practical breach had been made when an English fleet appeared on the coast, and threatened Caricaul, the French depôt, whereupon Lally, who had only twenty cartridges left for each man and two days' provisions, raised the siege and retired. On his return to Pondicherry, he prevailed on the council to grant him some aid towards the siege of Madras, and in November he advanced to that place with an army of 2,000 European foot and 300 European cavalry, the first yet seen in India, besides a large force of sepoys. The garrison of the fort consisted of 1,758 Europeans and 2,200 natives, under the command of the veteran Lawrence, who was supported by thirteen officers trained under his own eye. The siege was prosecuted for two months with vigour, Black Town was taken and a breach was at length effected; but, at the last moment, the refusal of his officers to second him defeated Lally's plans, his provisions and ammunition were almost exhausted, and the appearance of an English fleet in the roads obliged him to raise the siege and retire precipitately. Misfortunes crowded upon him. The Northern Circars were occupied by a force despatched from Calcutta by Clive, under Colonel Forde; and Salaubut Jung, having no longer anything to hope or fear from the French, went over to the English, and bound himself by treaty never to allow a French force to enter his service. (23) *Capture by Coote of Pondicherry.*—Lally returned to Pondicherry, with his army, officers as well as men, in a state of insubordination. But his hopes were raised by the arrival of a powerful fleet consisting of eleven vessels, the smallest of which carried fifty guns; the English squadron was scarcely less powerful. In the naval engagement which ensued both parties were crippled, but neither of them beaten. The French admiral however disregarding the entreaties and menaces of the authorities at Pondicherry, sailed away with his whole fleet to the Isle of France, leaving the command of the sea with the English. The French troops mutinied for their pay, which was ten months in arrears, and marched out of Pondicherry towards Madras, but were induced to return by the discharge of a portion of it. Lally wishing to bring on an engagement, marched on Wandiwash, captured the town, and laid siege to the fort. The English force under Colonel Coote, an officer second in ability only to Clive, came up for its relief. The result was the battle of Wandiwash (January 1760), one of the most severely contested and most decisive which had as yet been fought in India, in which the French sustained a signal defeat. Lally then fell back on Pondicherry, where he encountered nothing but intrigue and sedition from his colleagues. "From this time," he said, "without money, without ships, without even provisions, Pondicherry might be given up for lost." Coote, in the meantime, drove the French from all the towns and positions they held in the Carnatic, and prepared for the siege of Pondicherry. The town was subjected to a strict blockade during the rains, and vigorously besieged as soon as they ceased. Lally though thwarted in every way by the civil functionaries, maintained a long and energetic defence and did not surrender the town until reduced to two days' provisions. The French Court of Directors had sent instructions to Lally to erase the English settlements from the land. The despatch had fallen into the hands of the English Directors, and in retaliation Pondicherry was levelled with the ground. The war, which with a brief interval the two nations had waged for fifteen years, thus terminated in the extinction of the French power. The hope of establishing a French empire in India, which had equally animated Labourdonnais, Dupleix, Bussy and Lally, was extinguished. Their settlements were indeed restored at the peace of Paris in 1763, but they never recovered their political position in India. Lally returned to Paris and was thrown into the Bastile, where he lingered for three years. He was then brought to trial, denied the assistance of counsel, and condemned to death on the charge of having betrayed the interests of the king and the company. He was drawn on a dung cart to the scaffold and beheaded, the third victim to the caprice of his country within a space of fifteen years. Pondicherry was again captured by the English in 1778, restored by the treaty of Versailles in 1783, recaptured in 1793, and in name restored in 1802 by the peace of Amiens. (24) *Designs of Bonaparte on India.*—By the treaty of Amiens all the foreign settlements that had been captured by the English in India were restored, except Ceylon. The Court of Directors immediately ordered their military establishments in India to be reduced, but Lord Wellesley hesitated to comply with this order, and the course of events vindicated his sagacity. The treaty was no sooner ratified than Bonaparte despatched a large armament to Pondicherry, with the determination of re-establishing the French power in India. In consequence of these proceedings Lord Wellesley determined to disregard the royal warrant, which directed him to restore to the French Republic "all the countries, territories, and factories which had belonged to it in India." Accordingly on the arrival of the French squadron at Pondicherry, Clive, then Governor of Madras, was directed to inform the admiral that the Governor-General had resolved to postpone the restitution of the French settlements till he could communicate with England. The fleet returned to the Mauritius, and hostilities meanwhile recommenced in Europe. In 1808 again, it was supposed that the treaty between the Emperor of Russia and Bonaparte included certain secret articles having reference to extensive schemes of conquest in the East. In consequence of this the Court of Directors decided to make alliances with the native sovereigns of India, and a treaty was made with Runjeet Singh in 1809. Another embassy for the same purpose was sent to Cabool, and a third to Persia. The French territories in India were finally restored by the treaties of 1814 and 1815. (25) *Present French possessions in India.*—The present French possessions in India are—on the Coromandel coast, Pondicherry, with the two districts of Villenoor and Baboor, and Caricaul; on the Orissa coast, Yanam and a small piece of ground at Masulipatam; on the Malabar coast, Mahé and some ground at Calicut; in Goozerat, a factory at Surat; in Bengal, Chandernagore, and small portions of Cossimbazaar, Jougdia, Dacca, Balasore, and Patna. The whole French possessions cover 178 square miles with a population of 280,381. Pondicherry is the seat of government.

receive in connection with this subject an indemnity from the British Government of Rupees 4,42,630. This amount is made up of the following items :—(1) Four lakhs of sicca rupees equal to 4,26,000 rupees of the present currency (paid under article V of the Convention of 1815); (2) 4,000 star pagodas equal to Rupees 14,000 (under article 3 of the Convention of 1818); and (3) the moiety of the expenses incurred for the transport of salt (under article 6 of the Convention of 1837), which moiety, according to the figures of the current official year (1883-84), is Rupees 2,630 in round numbers. The theory of the indemnity is that it is necessary to pay France to keep her out of the market as a salt-producer, and to avoid additional difficulty on the land customs line. The indemnity is rather of the nature of a political than of a commercial payment. Besides this payment, a sum of Rupees 3,550 is paid every year to the French Government on account of the abolition of the arrack farm in the French Pettah at Masulipatam. Including this sum the total amount paid to France annually is Rupees 4,46,180. The Convention of 1837 merely renewed that of 1818, with the additional proviso that either contracting party could withdraw at a year's notice.

3. The Madras Government have Consular Agents at Pondicherry and Caricaul. These officers (1) have duties connected with Marine Acts, for instance the Merchant Shipping Act of 1854, the Amended Law of 1859 relating to Merchant Seamen, the Native Passenger Ships Act of 1876, and the Indian Merchant Shipping Acts of 1875 and 1880; (2) they have also notarial duties under the Indian Evidence Act of 1872, and (3) judiciary duties under chapters VI and XXV of the Civil Procedure Code; (4) should any questions arise under the Foreign Jurisdiction and Extradition Act of 1879, the British Consular Agents endeavour to settle them; (5) they are not unfrequently called upon to remove misunderstandings occurring between British and French subjects; (6) they are required to see that summonses sent to them from the High Court of Madras and other Courts in the Mofussil are duly executed; (7) they act also as Protectors of Emigrants for Madras in the two foreign settlements, for which see under Emigration.

4. Foreign Consuls at British Stations.—At Madras the following Governments are represented by Consuls :—America, Austria, Belgium, France, Germany, Italy, Portugal, Spain, and Sweden and Norway. At Cocanada, America, Austria, Bremen, France, and Germany are represented. At Tellicherry, France has a Consul. At Cochin, both France and Germany have Consuls. At Bimlipatam, Germany has a Consul. The French Consuls act under the authority of the Consul-General of France at Calcutta. The duties of a Foreign Consul in this country may be taken to be as follows :—(i) In regard to vessels from the country to which he is accredited arriving at the Indian port, he sees that their register and shipping articles are deposited with him as soon after arrival at the port as possible, he collects tonnage and other fees according to the foreign Government tariff, and he delivers these papers to the commanders on production of the Custom House clearance; he also investigates complaints made by either master or crew in these cases and endeavours to settle disputes, or if necessary calls in the police or sends the case to a Magistrate; (ii) he protects, as far as possible, distressed seamen belonging to the foreign country and endeavours to secure passages or employment for them; (iii) he affords assistance required by foreign subjects generally belonging to the foreign country; (iv) he winds up estates of such citizens dying in the Presidency in cases where there are no legal representatives; (v) he administers oaths and attests signatures to legal documents executed by such citizens in the Presidency in regard to property in their country; (vi) he sees that in shipments of produce and merchandise to the foreign country the correct values are stated in invoices, so as to ensure the proper duties being levied at the ports of that country; (vii) he forwards to the Government of the foreign country statistics and reports in regard to the trade of this country; (viii) he forwards in some cases sanitary reports to the National Board of Health of the foreign country; (ix) he obtains and forwards to the Government of the foreign country information on other subjects, as required.

RELATIONS WITH NEIGHBOURING STATES AND PROVINCES.

5. INTRODUCTION.—The chief neighbouring native states, or provinces administered by the British Government, with which this Presidency has more or less direct relations, are Hyderabad, the Central Provinces, Mysore, Burmah, the Andaman and Nicobar Islands, the Straits Settlements, and Ceylon. The following remarks give some information in each case under the five heads of general description, internal administration, control by the British if this is separate, points of general or political contact with this Presidency, and trade in relation to this Presidency. The foot-notes give in each case a sketch of the past political relations of the English nation with the state or province.

6. HYDERABAD.—South of the Nerbudda commences the division of India called the Deccan, a large expanse of territory filling all the broadest part of that triangular peninsula which has its vertex at Cape Comorin, while its base is formed by the Nerbudda and by a line continued from that river to the mouths of the Ganges. This region, with the exception of the sea-coast from which it is separated by the ghauts, composes a table-land of some elevation, though inferior to Malwah on one side, and to Mysore on the other. The interior of the Deccan to the eastward, comprising the provinces of Hyderabad, Nundair, Bedar, and the greater part of the ancient Berar, composes a large surviving fragment of the Moghul empire, under the government of the Nizam.[1] The whole of this territory is a table-land, diversified by hills considerably less lofty than those of the Western Deccan. It has many fertile spots, particularly in the small province of Nundair,

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[1] SKETCH HISTORY OF PAST POLITICAL RELATIONS BETWEEN THE BRITISH AND THE NIZAM—*Asaf Jah and his descendants.*—The fortunes of the present Nizam's family were founded by Coomr ood deen Asaf Jah, a distinguished soldier of the Emperor Aurungzeeb, who, in 1713, was appointed Nizam ool moolk and Soobahdar of the Deccan, but eventually threw off the control of the Delhi Court. Asaf Jah died in 1748, and was succeeded by his second son, Nazir Jung, the eldest son, Ghazee ood deen Khan, holding high office at the Court of Delhi. The claims of Nazir Jung were disputed by Mozuffer Jung, his nephew, with the support of Dupleix, the Governor of the French settlements, who saw in the establishment through his influence of Mozuffer Jung as Soobahdar of the Deccan, and of Chunda Sahib, a claimant for the Nawabship of the Carnatic, a sure means of securing the ascendency of the French in India. The support which Mozuffer Jung received from the French was, in those times, of itself sufficient reason to induce the English to lend their aid and influence to Nazir Jung. Mozuffer Jung fell into the hands of his uncle, by whom he was imprisoned, but in the following year, after the murder of Nazir Jung by Pathaun rebels, he was released, and with the support of the French assumed the authority of soobahdar. After his accession Mozuffer Jung received into his service a body of French troops under command of Bussy, and assigned to the French large territories near Pondicherry, the province of Caricaul, and the town and district of Masulipatam. He was soon after killed in a mutiny of his troops. His only son being a minor, Salaubut Jung, the third son of Asaf Jah, was placed in power by the influence of the French, in gratitude for which Salaubut Jung confirmed many of the privileges enjoyed by them, and assigned several districts in the Northern Circars for the pay and equipment of the French auxiliaries in his service. (2) *Cession of Masulipatam.*—On the outbreak of the war between France and England in 1756, the French were driven out of the Northern Circars by an English force. Salaubut Jung, who had advanced to oppose the English, did not feel himself strong enough, without the aid of his French auxiliaries who had been recalled by Count Lally, to risk a battle, and was glad to conclude a treaty granting Masulipatam and other districts to the English in inam, and binding himself to exclude the French from his dominions. The acquisitions of the British in the Northern Circars were confirmed by a firmaun of the Emperor of Delhi in 1765, at the same time that the Diwanny of Bengal, Behar, and Orissa was obtained. (3) *Cession of the Northern Circars.*—Salaubut Jung was deposed in 1761 by his younger brother Nizam Ally, and died two years afterwards in prison. In 1765 Nizam Ally devastated the Carnatic, but was driven back. At the same time an English force took possession of the Carnatic in virtue of a firmaun from the Emperor of Delhi. The Nizam was making active preparations for the continuance of hostilities, but the Madras Government, then labouring under pecuniary difficulties and alarmed at the prospect of a war, deputed General Calliaud to Hyderabad to negotiate peace. The negotiations resulted in a treaty by which for the Circars of Ellore, Chicacole, Rajahmundry, Moostafanugger, and Moortizanugger or Goontoor, the British Government agreed to furnish the Nizam with a subsidiary force when required, and to pay nine lakhs a year when the assistance of their troops was not required. The Nizam on his part engaged to assist the British with his troops. The Circar of Goontoor, which the Nizam had given in jagheer to his brother Basaulat Jung, was not to be taken possession of till the latter's death, except in the event of his creating disturbances in the Carnatic. (4) *Treaty of* 1768 *with the Nizam.*—Under this treaty a corps of two battalions joined the Nizam for the reduction of the fort of Bangalore in the possession of Hyder Ally, with whom the British Government was then on hostile terms; but it was soon withdrawn in conseqence of the Nizam having treacherously deserted the British alliances and invaded the Carnatic in conjunction with Hyder Ally. The Nizam, however, was soon compelled to separate from Hyder, and in 1768 another treaty was concluded between the British Government and the Nawab of the Carnatic on the one part and the Nizam on the other, by which the Nizam revoked all sunnuds granted to Hyder Ally by the Soobahdars of the Deccan, agreed to cede to the English the Diwanny of the Carnatic above the ghauts which had been seized by Hyder Ally, on condition of their paying him seven lakhs of rupees a year; not to interfere with the possessions of the Nawab of the Carnatic; and to accept a reduced payment for the Northern Circars. The engagement between the English and the Nizam mutually to assist each other with troops was altered into an agreement to furnish the Nizam on requisition with two battalions of sepoys with guns, on condition of the Nizam defraying their expenses, it being understood that the force was not to be employed against any person in alliance with the English. (5) *Disputes with the Nizam.*—In consequence of Basaulat Jung collecting French troops in Goontoor, it became necessary in 1774 to call on the Nizam to order their removal. No results followed the Nizam's orders. But in 1779 Basaulat Jung, threatened by Hyder Ally, craved the protection of the English and agreed with the Madras Government to rent to them the Goontoor districts, to dismiss the French troops, and to receive English troops adequate for the defence of the district. This engagement, which was concluded without reference to the Nizam, was considered by him to be a breach of the treaty of 1768, and was disallowed by the Supreme Government. The district of Goontoor, which in the meantime had been transferred to the Nawab of the Carnatic on a ten-years' lease, was restored to the Nizam's officers. The same unseemly acrimony which had characterized the discussions regarding the treaty concluded by the Bombay Government with Raghoba in 1775 disgraced the discussion of this treaty between the Supreme Government and the Government of Madras. (6) *The Goontoor District.*—In 1782 Basaulat Jung died, and the Goontoor Circar, which ought to

extending along the Godavery, and in the most southerly one of Bedar. The territory of the Nizam, otherwise called the Nizam's dominions, forms at the present date the principal tributary native state in India. It lies between latitude 15° 10′ to 21° 41′ N., and longitude 74° 40′ to 81° 31′ E., being 475 miles in length from south-west to north-east, and about the same distance in breadth. Its area is

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have lapsed to the English, was retained by the Nizam's officers. In 1788 a Resident was sent to Hyderabad to demand restitution of the district and to adjust the tribute due to the Nizam, the payment of which had been allowed to fall into arrears. The demand for the restoration of Goontoor was complied with; but the dispute regarding the arrears of tribute could not be adjusted at Hyderabad. It was by mutual consent referred to the decision of the Governor-General, and Meer Abd ool Cassim was deputed by the Nizam to Calcutta to represent his interests. After allowing for the revenues collected from Goontoor by the Nizam, the arrears due by the British Government were reduced to the sum of Rupees 9,16,665. The mission of Meer Abd ool Cassim was productive of a new engagement explanatory of the treaty of 1768. By this engagement, which was in the form of a letter from Lord Cornwallis, but was declared to be as binding on the British Government as a regular treaty, it was explained that the words in the 6th article of the treaty of 1768 "whenever the situation of affairs will allow of such a body of troops to march into the Deccan" should be understood to mean that the force engaged for by that article should be granted whenever the Nizam should apply for it, provided that it should not be employed against any power in alliance with the British Government. (7) *Treaty of* 1790.—On the breaking out of the first war with Tippoo Sultan, Lord Cornwallis made every effort to secure the co-operation of the Nizam, by promising him full participation in the advantages which might result from the war. A treaty of offensive and defensive alliance was concluded with him on 4th July 1790. By this treaty, to which the Peshwa was made a party, it was stipulated that the Nizam and the Peshwa should invade Tippoo's territories, and should furnish a contingent of 10,000 horse to be paid for by the British Government, that an equal division should be made of the territories conquered, that certain poligars and zemindars who had formerly been dependent on the Nizam and Peshwa should be placed on their former footing, and that if, after the conclusion of peace, Tippoo should attack any of the contracting parties, the others should join and punish him. On the termination of the war territories yielding an annual revenue of 13,16,000 pagodas were made over to the Nizam as his share of the conquests. (8) *Proposals for a more definite treaty.*—After the conclusion of peace Lord Cornwallis transmitted to Hyderabad and Poona proposals to reduce to a definite treaty the mutual guarantee against Tippoo which had been stipulated for in the treaty of 1791. But owing to the delay and evasions of the Peshwa, whose designs against Tippoo and the Nizam would have been frustrated by the engagements proposed, the conclusion of the treaty was abandoned, although the Nizam had given his verbal consent to it. (9) *Convention of Kurdla.*—At this time the Mahrattas revived a claim against the Nizam for arrears of chowt, and threatened hostilities if it were not satisfied. The Nizam applied to the British Government for aid, but Sir John Shore was precluded by the treaties with the Mahrattas from interfering further than as a mediator. The war which broke out in 1795 terminated in the convention of Kurdla, by which the Nizam was compelled to cede to the Mahrattas territories yielding a revenue of thirty-five lakhs of rupees, to pay three crores of rupees, and to give his minister Azam ool Oomrah as a hostage for the fulfilment of these terms. Three-fourths of the territory ceded by the Nizam was afterwards recovered during the dissensions which followed the death of Madhoo Row Peshwa. (10) *The British subsidiary force.*—The resentment created in the mind of the Nizam by the refusal of the British Government to aid him in his extremities, or to permit the subsidiary force to accompany him in the war, led him to entertain in his service a body of troops commanded by French officers, and to dismiss the British subsidiary force. Friendly relations with him were therefore threatened with rupture; but before matters came to a crisis the rebellion of his son, Ally Jah, compelled him to beg the return of the subsidiary force. The return of the minister Azam ool Oomrah from Poona was also favorable to British influence, and as the threatening attitude of Tippoo made a closer connection with Hyderabad desirable, a treaty was concluded on 1st September 1798, by which the subsidiary force was made permanent and raised to six battalions costing Rupees 24,17,100 a year; the Nizam's French corps was to be disbanded; the British Government was to arbitrate between the Nizam and the Peshwa, or, in the event of the Peshwa not consenting to that arrangement, to protect the Nizam from any unjust and unreasonable demands of the Mahrattas. (11) *Treaty of* 1800.—On the outbreak of the second war with Tippoo in 1799, the subsidiary force and the Nizam's army co-operated with the British troops, and after the fall of Seringapatam the Nizam received by the partition treaty of Mysore districts yielding 6,07,332 pagodas. To this were subsequently added two-thirds of the territories which were offered to, but rejected by, the Peshwa. The jealousy with which the Mahrattas viewed the operations against Tippoo, and the threatening attitude which they assumed, led the British Government to strengthen their connection with the Nizam, and a new treaty was concluded with him on 12th October 1800, by which two battalions of infantry and one regiment of cavalry were added to the subsidiary force, and for the payment of the force the Nizam ceded all the territories he had acquired by the Mysore treaties of 1792 and 1799, yielding about 17,58,000 pagodas, subject to some exchanges to secure a well-defined boundary. The treaty regulated the duties on which the subsidiary force was to be employed, secured the Nizam in the sovereignty of his dominions, prohibited his entering into political negotiations with other states, and made the British Government the arbiter in his disputes with other powers. In consequence of the equivocal conduct of the Nizam in the first Mahratta war, and the refusal of his officers to receive the wounded in the battle of Assye into the forts of Dowlatabad and Daroor, an additional article was added to the treaty of 1800, requiring the contracting parties to admit the troops of either party into their forts when called upon. (12) *Commercial treaty of* 1802.—In 1802 a treaty was concluded to improve the commercial relations between the British Government and Hyderabad, by limiting the duty on imports to 5 per cent. and regulating the manner in which it should be levied. With exception of the duties levied under this treaty all transit duties have been abolished in the Nizam's dominions. Duties of every kind on grain have likewise been abolished, and the prohibition which had formerly been put on the export of grain has been removed. (13) *Chundoo Laul as minister.*—Nizam Ally died in 1803 and was succeeded by his son, Secunder Jah, who went through the farce of obtaining the confirmation of the Emperor of Delhi. On his accession all existing treaties were confirmed. At the close of the Mahratta war the Nizam received by the partition treaty of Hyderabad, dated 28th April 1804, the cession of the Deccan territories conquered from Scindia and Nagpore. In 1808 died Meer Alam, the Nizam's able minister and a sincere friend of the British Government. The two persons who stood highest in competition for the vacant post were Mooneer ool moolk, son-in-law of Meer Alam, and Shums ool Oomrah, chief of the military party in the State. Lord Minto, whose advice had been spontaneously asked by the Nizam, recommended the appointment of the latter; but the Nizam did not accept the advice and selected Mooneer ool moolk in preference. As a condition of the appointment of the new minister, however, the Nizam required him to enter into an agreement that the affairs of the State should be conducted through the agency of Chundoo Laul, a custom which had prevailed from the time of the death of Meer Abd ool Cassim. The Nizam himself, whose sanity was doubted, lived a secluded life, and took no interest in the administration. Chundoo Laul was a staunch supporter of British interests throughout the long and not altogether friendly rule of Secunder Jah, and under him the reform of the military establishments was commenced, and a regular army disciplined by British officers was organized. The most opposite views have been taken of Chundoo Laul's character. But whatever may have been his faults, he was the only person that could be found at Hyderabad capable of carrying on the administration, and neither the Nizam himself nor successive Residents, who were not all well-disposed to Chundoo Laul, could find a better man to fill his place. (14) *Services of the Nizam's army in the Pindarry and Mahratta wars.*—The Nizam's army proved of much service in the Pindarry and Mahratta wars in 1817, and after the overthrow of the Peshwa these services were recognized by the treaty of 12th December 1822 whereby the Nizam received a considerable accession of territory, was released from all arrears of tribute which he owed to the Peshwa, and from all future demands of it, and some exchanges of territory were effected to secure a well-defined frontier. The Nizam was bound to protect the rights of the landholders in the districts made over to him; a stipulation which has led to constant and unpleasant discussions with his government. In 1847 a commission was appointed to inquire into all claims under this guarantee. The claims finally allowed amounted to Rupees 1,00,147. (15) *Composition by the English for the annual payments on account of the Northern Circars.*—Secunder Jah died in 1829 and was succeeded by Nazir ood Dowlah, with whom a treaty was concluded confirming all existing

about 98,000 square miles, with a population exceeding 11 millions and a revenue of about 400 lakhs of rupees. These dimensions include the modern Berar or the "Assigned Districts."

7. The present Nizam of Hyderabad, Meer Mahbood Ally, succeeded in 1869, and only in 1884 attained his majority on completing his eighteenth year. During

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treaties. During the latter years of Secunder Jah's rule, the administration of the country had fallen into great disorder. The revenues of the State were farmed to contractors who were supreme in their several districts. As a consequence, the grossest oppression prevailed, and the disciplined force under British officers was repeatedly called out to repress local rebellion. The country was in the possession of robber bands and the roads were unsafe except for persons travelling with large-armed escorts. For the restoration of order it became necessary to employ British officers in the different districts who settled the amount of revenue to be levied, and under their administration the country soon improved. The State, moreover, was deeply involved in debt both to merchants and to the British Government. The annual payments to the Nizam for the Northern Circars were bought up for a sum of Rupees 1,66,66,666, by which the Nizam's Government was extricated from its difficulties. (16) *Withdrawal of the British Government from interference with the administration.*—When Nazir ood Dowlah succeeded, he requested that the direct interference of the British officers in the administration might be discontinued. The Nizam's request was complied with. He was assured that, provided he maintained inviolate the settlements made by the British officers until the period for which they were made should expire, the British Government would withdraw from all interference, and the Nizam would be absolute both in the selection and removal of his minister and in all other matters of internal administration. The withdrawal of interference was immediately followed by the return of disorder and misrule. Every department of the Government became disorganized, and the credit of the State was so bad that bankers refused to grant loans. Chundoo Laul finding himself unable to cope with the financial embarrassments resigned the office of minister on 6th September 1843. His long and distinguished services to the Hyderabad State elicited from Lord Ellenborough a warm tribute of praise. (17) *The Hyderabad contingent.*—For some months the Nizam endeavoured to transact business himself, but he at length, with the approval of the British Government, appointed as his minister Sooraj ool moolk, son of the former minister Mooneer ool moolk. In the meantime the pay of the contingent had fallen greatly into arrears, and advances had to be made from the British treasury. By the 12th article of the treaty of 1800, the Nizam agreed in time of war to furnish 6,000 infantry and 9,000 cavalry to co-operate with the British army, and to employ every effort to bring into the field as speedily as possible the whole force of his dominions. The Nizam's troops had proved very inefficient in the first Mahratta war, and after the conclusion of the campaign various schemes were from time to time proposed for their reform, with little success. At length in 1813 one of the corps at Hyderabad mutinied, and in their place Chundoo Laul raised two battalions, who were armed, clothed, and equipped like the Company's troops. It was in these reformed troops that the contingent had its origin. (18) *Advances from the British treasury on account of the contingent.*—When advances began to be made from the British treasury for the payment of the contingent force in 1843, the Nizam was distinctly informed that in the event of further advances becoming necessary a territorial security for the payment of the debt would be demanded. No efforts however were made to pay off the debt on account of the contingent either by Sooraj ool moolk or by his successors in office, Amjad ool moolk and Shums ool Oomrah, who were appointed in 1848 and 1849 with the approval of the British Government. In 1849 a demand was made for the payment of the debt by 31st December 1850. No steps were taken for payment, and in 1851 a territorial cession was demanded to liquidate the debt, which now amounted to upwards of Rupees 78,00,000. A payment of Rupees 40,00,000 was at once made, and the appropriation of the revenues of certain districts was promised to meet the remainder. The demand for a territorial cession was therefore withdrawn. But no real improvement followed. The Resident was again obliged to make advances for the payment of the contingent, and in 1853 the debt had again risen to upwards of Rupees 45,00,000. (19) *Hyderabad Assigned Districts.*—Some new arrangement was absolutely necessary. Therefore in 1853 a new treaty was concluded with the Nizam, by which the British Government agreed to maintain an auxiliary force of not less than 5,000 infantry, 2,000 cavalry, and four field batteries of artillery; and, to provide for its payment and for certain pensions and the interest on the debt, the Nizam ceded in trust districts yielding a gross revenue of fifty lakhs of rupees, it being agreed that accounts should be annually rendered to the Nizam, and that any surplus revenue which might accrue should be paid to him. By this treaty the Nizam, while retaining the full use of the subsidiary force and contingent, was released from the unlimited obligation of service in time of war, and the contingent ceased to be part of the Nizam's army and became an auxiliary force kept up by the British Government for the Nizam's use. (20) *Salar Jung.*—Nazir ood Dowlah died in 1857 and was succeeded by his eldest son, Afzool ood Dowlah. During the mutinies of 1857 the maintenance of order at Hyderabad was important for the success of military operations in the Deccan and Central India. The hopes of the disaffected were excited by the succession of a new chief, and on 17th July an attack was made on the Residency. It was repulsed. The efforts of the Resident to preserve order were ably seconded by the Nizam's intelligent minister, Salar Jung, nephew of Sooraj ool moolk, who was appointed with the approbation of the British Government on his uncle's death in 1853. Salar Jung, by his enlightened policy and the abolition of the system of farming the revenues, has done much for the improvement of the country and the suppression of the plundering Rohilla mercenaries, who had so long disturbed the peace. (21) *Lawlessness of the Rohillas and Arabs.*—In addition to the lawlessness of the Rohillas another source of disquietude arose from the aversion of the large body of Arabs domiciled in Hyderabad to refer their disputes to the regular courts of justice and their disposition to resort to force in the settlement of their disputes, but in 1872 a reform was effected by the issue of a proclamation by the Nizam's Government withdrawing certain bodies of these Arabs from the immediate and absolute control of their own chiefs and bringing them within the jurisdiction of the ordinary criminal courts. (22) *Treaty of* 1860.—The provisions of the treaty of 1853, which required the submission of annual accounts of the Assigned Districts to the Nizam, were productive of much inconvenience and embarrassing discussions. Difficulties had also arisen regarding the levy of the 5 per cent. duty on goods under the commercial treaty of 1802. To remove these difficulties and at the same time to reward the Nizam for his services in 1857, a new treaty was concluded in December 1860, by which the debt of fifty lakhs due by the Nizam was cancelled; the territory of Shorapoor which had been confiscated for the rebellion of the rajah was ceded to the Nizam; and the districts of Dharaseo and the Ryechore Doab were restored to him. (23) *Guarantees in connection with Shorapoor.*—Two estates held by relatives of the late Rajah of Shorapoor, and life pensions to the widows amounting to Rupees 26,800 a year, are guaranteed by the British Government. (24) *Contemporary cessions by the Nizam.*—On the other hand the Nizam ceded the talooks of Rekapully, Bhadrachellam, Cherla, Albaka, Noogoor, and Sironcha of the present Godavery district, which are situated on the left bank of the river Godavery and of the river Weingunga above the confluence of the two rivers. The traffic on the river Godavery was to be free from all duties, and he agreed that the remaining Assigned Districts in Berar, together with other districts making up a gross revenue of Rupees 32,00,000, should be held in trust by the British Government for the purposes specified in the treaty of 1853; but that no demand for accounts of the receipts or expenditure of the Assigned Districts should be made. Applications for the restoration of the Hyderabad Assigned Districts have on more than one occasion been made by the ministers, but the British Government has declined to make any essential alteration in the arrangements provided for by the treaties of 1853 and 1860. Under British administration the revenues of Berar have greatly increased, and the Hyderabad State has since been paid a surplus amounting in the aggregate to Rupees 67,78,280. (25) *Duties on goods.*—The treaty of 1860 does not affect the duties levied on goods imported into or exported from the Nizam's territories. These remain as before at 5 per cent., except on salt, on which the Nizam is allowed to take a higher duty as an offset to the duty levied by the British Government on opium grown in Hyderabad. (26) *Salt manufactured in Hyderabad.*—In 1875 the Nizam's Government adopted the proposal of the British Government that article 3 of the commercial treaty of 1802 should not in future be held to apply to the transit of salt manufactured in Hyderabad territory. (27) *Attempt to remove Salar Jung from office.*—Owing to a misunderstanding between the Nizam and his minister the Nizam resolved in 1861 to remove Salar Jung from office, notwithstanding the remonstrances of the Resident. But the British Government refused to give countenance to the dismissal of a minister who had so admirably discharged the duties of his office, and reminded the

minority the administration was entrusted to two ministers or guardians, the late Sir Salar Jung and Shums ool Oomrah, acting in communication with the British Resident. On the 5th February 1884 the Nizam was formally invested by the Governor-General in person with the full powers of administration over his dominions. He chose on that occasion Nawab Salar Jung, eldest son of Sir Salar Jung then recently deceased, as Diwan. A Council of State has recently been created which consists of the Nizam himself and eight members selected from the native nobility. All important questions affecting the State may be referred to the decision of this body; but its functions are deliberative, and it has no power to interfere directly with the executive action of the Government. There are two Ministers of State to assist the Diwan called Sudder ool Mahams; one of these presides over the Police Department and the other over the Miscellaneous Department. Nawab Salar Jung's younger brother, Mooneer ool moolk, is now his assistant in the Revenue Department, and there is also a Revenue Board. The judicial courts in the capital have recently been reformed; there is now a High Court (Majlis i Alia), a Small Cause Court (Diwanny Adawlut), a Criminal Court (Fowjdarry Adawlut), a court for the trial of disputes amongst Arabs (Kazaya i Ooroob), and the usual Matrimonial Court (Dar ool Kazah) for Mahomedans. In the districts justice is administered by the Talookdars of the several grades in exercise of the powers with which they are invested by the Nizam's Government. Persian is still held to be the Court language and a large proportion of the official correspondence is carried on in it; but in all durbars and public occasions Oordoo is spoken, and much if not all the

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Nizam that no ruler, whatever his power or capacity for governing, can afford to dispense with an able and faithful minister, and that the Nizam's proceedings would be viewed as anything rather than as a proof of wisdom and justice. Salar Jung was maintained in office. (28) *Disputes between the Nizam and his minister.*—Differences again arose between the Nizam and his minister in 1867, but were eventually arranged, and Sir Salar Jung continued to hold the office of which he had felt compelled to tender his resignation. The opportunity was taken to impress upon the Nizam the advisability of his giving his entire confidence to a minister who had administered the state with so much ability and had introduced so many and great reforms, and to point out the serious consequences which a relapse into the former misrule from which it had recently been resumed would entail on the Hyderabad State. (29) *Offences committed by Europeans and others in Hyderabad territory.*—In 1861 the Nizam conferred on the Resident authority to inquire into and punish offences committed by Europeans and others in the Hyderabad territory. The chief if not the only practical value of this sunnud consists in the proof it affords that the Nizam distinctly consents to the trial of such offences by the British Government and waives all claim to have them tried in his own courts. But the sunnud of itself does not vest the Resident with power to try and sentence British subjects for offences committed in the Nizam's territories. The British Government alone can confer such power. (30) *Nizam's State Railway.*—In 1861 the Nizam agreed to cede the land required for railway purposes in the Ryechore Doab, and in 1870 an agreement was concluded between the British Government and the Nizam, providing for the construction of a railway to connect Hyderabad with the Great Indian Peninsula Railway. The main points of the agreement were that the Hyderabad State, with the aid of shareholders, should provide the capital necessary for the construction, maintenance, and working of the railway, including provision of land, payment of compensation, cost of survey, &c., and that the British Government should construct and manage the railway on behalf of the Nizam to whom all profits derived from the working were to go. (31) *Transit of mails.*—Objections were advanced by the Nizam's minister to the application to the Hyderabad State of certain rules laid down in 1866 for the purpose of enforcing the responsibility of Native States for the safe transit of mails through their territories. Government however declined to make an exception in favour of any State, and pointed out that the more complete the arrangements for the protection of the mails were the greater would be the freedom from the operation of the rules. (32) *Extradition treaty.*—In 1867 an extradition treaty was concluded between the British Government and the Nizam. (33) *Succession in Hyderabad State.*—The Nizam received in 1862 a guarantee that any succession to his state, which may be in accordance with Mahomedan law and the customs of his family, will be recognized. (34) *The present Nizam.*—Afzool ood Dowlah, who had been created a Knight Grand Commander of the Most Exalted Order of the Star of India, died after a short illness on 26th February 1869. His only son, Meer Mahbood Ally Khan, then not three years of age, was formally placed on the musnud by the British Resident, and the joint administration of affairs during the young Nizam's minority was placed in the hands of Sir Salar Jung and of Nawab Shums ool Oomrah. At the same time the former system under which there had been much centralization of all the functions of government in one person was modified, and some of the younger and more promising nobles of the state were associated in subordinate positions in the work of administration. The education of the young Nizam was an object of much solicitude to the British Government, and it was deemed a matter of the greatest importance that every effort should be made in this particular to fit him for the duties of his position. To this end a guarantee was obtained from the ministers that when the proper time arrived an English gentleman should be entrusted with the duty of superintending the education of the Nizam. This promise was fulfilled in 1874 by the appointment of Captain Clerk. The importance of consolidating and strengthening the system already established and of proceeding with the many reforms that had been introduced was urged upon the ministers. The measures which had been commenced but still required vigilance in the future were the final settlement of all past accounts with the creditors of the state; the release of all districts mortgaged or assigned to chiefs of various denominations in satisfaction of debt or for the payment of troops and establishments; the gradual reduction of those portions of the army which were not really needed for the defence of the country; the working of the police; the completion of the settlement of the land revenue and the limitation of the state demands to terms of years; the supplying adequate instructions to the district officials; the repair of existing tanks for irrigation and the restoration of once useful public works; the repairs of old independently of the construction of new roads; the sanitary condition of the large towns; the organization of the courts of justice; the prevention of corruption and other malpractices; the enforcement of legal decrees; and the gradual habituation of all classes to respect and obey the laws. (35) *Exchange of portions of territory.*—In 1871 the ministers agreed to an exchange of villages with a view to the rectification of that portion of the border of the Assigned Districts which touches on the territories administered directly by the Nizam's Government. It was understood that this arrangement in no way affected the conditions under which the Assigned Districts are held by the British Government, and that in the transferred villages the assessments introduced under British management would be maintained. (36) *The same.*—By the treaty of 2nd December 1871, Scindia ceded to the British Government his rights and interests of every description in certain ancestral villages which he possessed within the territories of the Nizam. As it was desirable to transfer the rights and interests which the British Government had thus acquired in these villages to the Hyderabad State, a memorandum of agreement was signed on 13th August 1872, by which the villages in question were ceded to the Nizam who in return ceded to the British Government in full sovereignty certain villages in the Bombay Presidency.

business of the Courts is of late done in the latter language. The command of a portion of the Nizam's army called the Pagah, or body-guard, is delegated to the Shums ool Oomrah family which holds as jagheers for the payment of this force districts worth from fifteen to twenty lakhs of rupees annually. This family is closely allied to that of the Nizam himself, and they manage their districts through their own agents or deputies, exercising a jurisdiction in them which is subordinate only to that of the Nizam. The representative for the time being of this family, who bears the title of Ameer i Kabeer, is the first noble of the State. There is also another portion of the army, the command of which the Nizam retains in his own hands. For the payment of this there are certain districts worth about twenty or twenty-five lakhs, which are technically called the "Sarf i Khas" or crown lands. The management of the crown lands is retained by the Nizam, and he conducts it through various chiefs who are accountable to no one but himself. In the districts of the interior and chiefly towards the frontier there are several rajahs who pay to the Nizam's Government merely an annual fixed sum, fixed at a very early period, and who are almost in the position of tributaries administering their own territories subject to slight control. These are the Rajahs of Wanaparty, Oommer Choontah, Goorgoonta, Gadwal, Jawalgherry, Anagoondy, Jatpol and Gopalpett. The families are of ancient origin, dating from before the first Mahomedan invasion. The probable revenue of these lands ranges from half to three lakhs; and the tribute payable by the rajahs to the Nizam's Government is from a quarter to one-and-a-half lakh per annum, or upwards of five lakhs in the aggregate. The Nizam is entitled to a salute of 21 guns. He maintains an irregular army of 43,704 men, costing 94 lakhs of rupees annually, which does police duty, and garrisons certain parts, for instance Goolburgah, Dowlatabad, Bedar, &c. Many Arabs and Rohillas are enlisted among these troops. He has also 5,000 "reformed troops," consisting of 2 batteries, 4 cavalry corps, and 24 infantry corps, under a European officer, and disciplined after the manner of the Hyderabad Contingent. The Hyderabad rupee, locally termed the Hully Sicca rupee, is smaller but thicker than the British rupee; and its intrinsic value is less than that of the latter, 100 British rupees being equal to 116-14-6 Hully Sicca rupees according to the last assay.

8. The Resident, residing at Chudderghaut, a suburb of Hyderabad, is the accredited representative of the Indian Government at the court of the Nizam. His functions in relation to that court are similar to those of Political Agents at other important native states. He exercises no direct control in the internal affairs of the State; but is consulted by the Native Government on all matters of considerable interest. His communications with the Nizam's Government are usually of a hortative character or confined to explaining the views and policy of the Government of India in matters affecting the interests of the two Governments. He has under his orders two British military forces; the Madras troops or "Hyderabad Subsidiary Force" with head-quarters at Secunderabad and Trimulgherry, and the Bengal troops or "Hyderabad Contingent" with head-quarters at Bolarum. Berar, or the districts assigned by the Nizam in 1853 to the British for maintenance of the Hyderabad Contingent, is a commissionership under the Resident and is administered by the Government of India. The province is sometimes termed "the Berars." It is treated in every way as a British province, the surplus revenue being however handed over to the Nizam.

9. The Hyderabad State forms the greater part of the northern boundary of this Presidency. It is itself more or less bounded north and south, and partly traversed, by the Godavery and Kistna rivers; the deltas of which as they pass to the east coast through British territory have been turned to such good account by the English engineers of this Presidency. A military road traverses the State north and south from Nagpore to Bangalore, and another north-west to south-east from Poona through Hyderabad city to Masulipatam and Madras. The railway line from Madras to Bombay strikes through the Nizam's dominions for about 180 miles between the railway stations of Toongabudra and Goolburgah. The Nizam's State Railway runs due west from Hyderabad and joins the Madras and Bombay Railway at Waddy, a distance of 121 miles, but the junction is within the Nizam's dominions. This line is to be extended north-east to Warangal also in the dominions, and thence north to Chanda and east to the Singareny coal fields,

these being both in the Central Provinces. From the sources last-named it is anticipated that the Madras Presidency may obtain a coal-supply. Warangal itself was once the capital of the ancient state of Telingana or the Teloogoo country, occupying a large part of Eastern and Central India. Golcondah in this state was the capital of the Kootbshahy dynasty of the sixteenth century, one of the five independent Mahomedan powers that arose on the disruption of the Bahminy Kingdom. Goolburgah was the capital of the Bahminy Kingdom. Ryechore is the junction between the Madras and Bombay Railways. Shorapoor is the chief town of the once independent state of the same name, administered with much success by Captain Meadows Taylor up to 1853, but confiscated for rebellion in 1857 and presented to the Nizam. No public writer has betrayed so much sympathy with the races of Southern India, coupled with full knowledge of their peculiarities, as Captain Meadows Taylor. Aurungabad was the old capital of the Deccan. Ajanta and Ellore are celebrated for their Booddhist caves. At Assye Wellington broke the Mahratta confederacy in 1803. Through the northern and western parts of the dominions are Mahratty-speaking countries, yet Teloogoo prevails in the south-east and Canarese in the south-west near the Kistna river. Of Bedar it has been remarked that in its vicinity are spoken the three languages of the east, west, and south; Teloogoo, Mahratta, and Canarese. The boundary of the Dravidian languages may be said to be somewhat north of the Kistna river. The following villages belonging to the Nizam are situated within the boundaries of the Kistna district and surrounded by British territory:—Booravancha, Malavaram, Kodavatakolloo, Oostapully, Gany-Atkoor, Poolipaud, Paritiala. The Madras troops, as already stated, have their head-quarters at Secunderabad, which is 5 miles from Hyderabad. The Bellary and Cuddapah districts were ceded by the Nizam to the British in 1800 for the maintenance of this force, as explained in the foot-note.

10. Trade into Madras territory from the Nizam's dominions passes across the frontiers of the Kurnool, Bellary, Godavery, and Kistna districts. It is carried on at five points on the southern frontier within the limits of the Kurnool district. Registering stations for that district exist at the following villages on the right bank of the Toongabudra and Kistna: Kurnool, Satanacote, Bijnivemoola, Moravacondah, and Siddeshwaram; the two latter stations being below the confluence of the two rivers. The principal articles of export from Kurnool district are cotton-goods, jaggery (unrefined sugar), salt, tobacco, and chillies. The imports from Hyderabad consist chiefly of rice, oil, oil-seeds, pulses, and clarified butter or ghee. In 1883-84 the approximate value of exports from British territory was Rupees 2,35,000, and of imports Rupees 2,55,000. There are eighteen stations on the frontier by which goods are exported and imported from and into the Bellary district. The total value of all imports during 1883-84 was Rupees 5,00,000, the principal being cleaned cotton and piece-goods (nearly Rupees 3,00,000) and wheat (Rupees 50,000). The total value of all exports was Rupees 6,00,000, the principal being raw silk and unrefined sugar (nearly Rupees 3,00,000). Indian piece-goods and indigo amounted to another lakh. Trade into the Godavery district from the Nizam's dominions is registered on the frontiers of the Yernagoodem and Bhadrachellam talooks at five places, viz., Jifloogoomitty, Polaveram, Doomagoodem, Bhadrachellam, and Wodigoodem. In 1883 the approximate value of exports from Godavery was Rupees 19,415 and of imports Rupees 1,32,093. There are four principal routes which trade follows in the Kistna district. Of these by far the most important is that through Juggayapett to Bezwada and Ellore, for which the registering station is Palair. The exports by that route from the Nizam's dominions in 1882-83 amounted to Rupees 37,55,000 and imports to Rupees 17,82,000. At Pondoogala in Pulnaud the exports amounted to Rupees 2,89,000 and imports to Rupees 28,000; at Tiroor the exports were Rupees 1,00,000 and the imports Rupees 2,20,000; at Krishnarowpollem the exports were Rupees 42,000 and the imports Rupees 82,000.

11. Central Provinces.—The eastern portion of the old Berar, with the greater part of the border province of Gondwana, formed originally the domain of the Rajah of Nagpore, chief of what were called the Eastern Mahrattas. The

present Central Provinces [2] were formed into one province in 1861 out of this country; of the Saugor and Nerbudda districts of the North-Western Provinces, and of territories on the borders of Orissa, Madras, and Bombay. They lie between 17° 50′ and 24° 27′ N. latitude and between 76° and 85° 15′ E. longitude, and are bounded on the north by Bhopaul, the North-Western Provinces, and Bundelcund, on the east by Reewah, the Chota Nagpore Tributary States, the

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[2] SKETCH HISTORY OF PAST POLITICAL RELATIONS WITH CENTRAL PROVINCES.—*The Nagpore family.*—The early history of the Nagpore family is somewhat obscure, but its importance in Indian history may be said to date from Raghojee, who, as a leader of predatory expeditions, had, at the time of his death in 1755, established the Mahratta supremacy over the country between the Nerbudda and the Godavery, from the Ajanta hills eastward to the sea. Raghojee left four sons, Janojee, Sabahjee, Madhojee, and Bimbajee, and was succeeded by Janojee, the eldest, who died in 1772, after having, with the concurrence of the Peshwa, adopted his nephew Raghojee, son of Madhojee, as his heir. The government, however, was, on Janojee's death, seized by Sabahjee, who held it through much opposition till 1775, when he was slain in battle by his brother, and was succeeded by Raghojee, a minor, under the regency of Madhojee. (2) *Treaty of* 1781 *between the English and Madhojee.*—Advances had been made by the Bengal Government during the rule of Janojee with a view to obtain Cuttack, but without success. An unsuccessful attempt was also made by Warren Hastings to rent a tract of country on the Cuttack coast from Madhojee. In 1779 Madhojee sent a force to invade Bengal in pursuance of a confederacy between the Mahrattas, the Nizam, and Hyder Ally, for the overthrow of the British power. Madhojee was at heart frendly to the British Government, and being dissatisfied at the refusal of the Peshwa to admit his claims tc Goorra Mundla he undertook this expedition with much reluctance. The British Government who had despatched a force to the Carnatic by the coast route, under Colonel Pearse, to co-operate with the Madras army against Hyder Ally found therefore little difficulty in concluding a treaty on 6th April 1781, by which the army of Madhojee was bought off from its invasion of Orissa, and a promise was obtained from him of assistance against Hyder Ally. (3) *Treaty of Deogaum.*—On the death of Madhojee in 1788, the uncontrolled power devolved on Raghojee, who was then twenty-eight years of age. When the triple alliance was formed between the British Government, the Nizam, and the Peshwa, for the overthrow of Tippoo Sultan, negotiations were opened with a view to include Raghojee in the confederacy, but Seringapatam fell before they were brought to a close. Raghojee was too jealous of the increased ascendency acquired by the British Government on the fall of Tippoo, to be induced to enter into an alliance to check the growing power of Scindia. He even exerted his influence, although without success, to put a stop to the contest between Scindia and Holcar with a view to a union against the English; and after the Treaty of Bassein he joined Scindia in the war which was begun to defeat the objects of that treaty. The power of Scindia and Raghojee in the Deccan was broken in the battles of Assye and Argaum. The ruin of Raghojee was completed by the fall of Gawilgurh, and, on 17th December 1803, he signed the Treaty of Deogaum. By this treaty the Rajah was stripped of the province of Cuttack and of the country to the west of the Wurdah and south of the Nernullah and Gawilgurh hills. This treaty was confirmed by the treaty of 1804 with the Peshwa. Its effect was to reduce the revenues of the Berar State from about one crore of rupees to sixty lakhs. (4) *Restoration of Sumbulpore and Patna to the Rajah.*—In 1806 the territory of Sumbulpore and Patna was restored to the Rajah gratuitously, in consideration of the great loss to which the Rajah had been subjected by the transfer of the tribute and allegiance of the chiefs of those districts to the British Government. But the Rajah steadily rejected repeated advances towards closer relations, and resisted all efforts made to induce him to subsidize a British force. (5) *Treaty of* 1816.—Raghojee died in 1816, and was succeeded by his only son Pursojee. This chief being incapacitated for government, a regency was formed under Madhojee Bhonslay, better known as Appah Sahib, Pursojee's cousin. Appah Sahib, however, was by no means secure in power, and to strengthen himself he negotiated a treaty with the British Government in May 1816, by which the Rajah agreed to subsidize a British force, costing Rupees 7,50,000 a year, and to maintain a force of not less than 3,000 cavalry and 2,000 infantry, with the necessary equipment of guns and warlike stores. (6) *Appah Sahib.*—In 1817 Pursojee died suddenly, having been murdered, as was afterwards discovered, by Appah Sahib. Soon after his accession, Appah Sahib made common cause with the Peshwa, who was then inciting all the Mahrattas to unite against the English. He fell upon the Residency with an overwhelming force, but was gallantly repulsed, and compelled on 6th January 1818 to sign a provisional agreement ceding lands in lieu of the subsidy and contingent, and engaging that the government of the country should be conducted according to the advice of the Resident. Appah Sahib, however, persevered in his intrigues against the British Government. He was arrested, but effected his escape, and found refuge among the Gonds. After an unsuccessful attempt to regain his hold of Nagpore, he fled to Hindostan in February 1819. He died at Jodhpore in 1840. (7) *Treaty with Raghojee.*—On the deposition of Appah Sahib, a grandson of Raghojee by his daughter was placed in power on 26th June 1818. He assumed the name of Raghojee in honor of his grandfather. During the minority of the new Rajah, the Nagpore territory was under the management of the Resident, acting in the name of the Rajah. In 1826, when the Rajah attained his majority and was entrusted with the administration, a treaty was made with him, by which he ceded for ever territories to pay the cost of the subsidiary force, and assigned lands as a guarantee for the payment of the troops which he was bound to maintain, and which were thenceforth to be under control of the British Government. The Rajah also bound himself to maintain good government under control of the Resident. The provisions of this treaty, however, were acknowledged to press heavily on the Rajah's resources, and to be inconsistent with the declared wish and resolution of Government to restore the Bhonslay family to the rank and station of one of the substantive powers of India. In 1829 therefore the treaty was modified, the assigned districts were restored to Nagpore, a subsidy of eight lakhs a year was taken instead, the auxiliary force was disbanded, and the Rajah was required to keep up a national force of his own sufficient to preserve the internal tranquility of the country. The Rajah was at the same time released to some extent from his complete subjection to the Resident in the administration of affairs. At the request of the Rajah, in 1830, the 6th article of the treaty of 1826, the utility of retaining which was not very apparent, was cancelled. (8) *Lapse of the Nagpore State to the British Government.*—Raghojee retained the administration of affairs till the day of his death, 11th December 1853. He died without a son, without any heir whatever, and without any adopted child, and it was determined to incorporate with the British territories the Nagpore State, which had in 1818 been forfeited by the treachery and hostility of Appah Sahib, had been declared to belong to the British Government by right of conquest, had been conferred by free gift on Raghojee, his heirs and successors, by the treaty of 1826, and had now lapsed to the British Government by default of heirs. (9) *Rajah Bahaudur of Deor.*—In 1855 the surviving widows of the late Rajah adopted as their son and heir, Janojee Bhonslay, a collateral relation of the Rajah in the female line. In consideration of the loyalty of the family during the rebellion of 1857, the title of Rajah Bahaudur of Deor, and the lands of Deor, in the district of Sattara, were conferred in perpetuity on Janojee and his heirs, whether by blood or by adoption. The family receive pensions amounting at present to Rupees 2,03,000. (10) *The Central Provinces constituted.*—In November 1861 Nagpore and its dependencies and the Saugor and Nerbudda territories were formed into a separate administration under a Chief Commissioner, and to these were added in April 1862 Sumbulpore, Patna, and their dependencies, which had hitherto been under the control of the Government of Bengal. These territories are known as the Central Provinces. Including the Sumbulpore and Patna group there were Weingunga zemindars 34, Chatisgurh zemindars 34, Chanda zemindars 21, Chindwarra jagheerdars 12, Saugor and Nerbudda chiefs 3, Sumbulpore and Patna chiefs 11; total 115 chiefships and zemindarries of very varying extent and revenue. (11) *Weingunga, Chatisgurh, Chanda and Chindwarra chiefs.*—The Weingunga zemindarries were granted or confirmed by the Mahrattas to Gond or Rajpoot families as rewards for service or to ensure their assistance in maintaining order in what was then a very unsettled country. The zemindars were bound to furnish a certain number of armed men to assist the Government in police duties, and paid a rent always liable to enhancement. No written engagements under the treaty of 1829 were formed with them by the British Government. The Chatisgurh zemindarries were held in ancient times by the Chatisgurh Rajahs of the Hyhybunsee dynasty of Ruttenpore on the tenure of military service, which the Mahrattas changed to a tribute varying in amount with the power of the Government to exact it. The Chanda

Orissa Tributary Mahauls and Jeypore, on the south by the Nizam's dominions and the Madras districts of Ganjam and Godavery, and on the west by the Nizam's dominions, Berar, and Bhopaul. The area of the whole province is 113,042 square miles, of which 84,208 square miles are British territory with a population of 9,805,149. The Native States comprise 29,112 square miles with a population estimated at 1,700,000. The population of the whole province is 11,505,149. The revenue is over 15 millions of rupees.

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tenures were of a similar description to those of the Weingunga group and subject as a rule to the payment of tribute. The Chindwarra jagheerdars had always been in a kind of feudal subjection, first to the Gond Rajahs and subsequently to the Mahrattas; but the natural strength of their country preserved them from entire subjection to the latter, whose policy, therefore, it was to support one of the most powerful of them in order that he might keep the others in check. In 1819 the status of these dependent chieftains was enquired into by the Mahratta Government through the British officers who were then managing the country in the name of the Rajah, and their powers were restricted under new engagements binding them not to inflict capital punishment, to refer their disputes to the arbitration of that Government, and generally to be loyal and obedient. They renounced in these engagements the right which some of them had usurped of levying transit duties; some of them were also required to furnish a specified number of men when called upon by the Mahratta Government to do so, but as it was an object to treat them liberally their tributes were not as a rule enhanced. By article 2 of the treaty of 1818, engagements were concluded with the Gond and other tributary chiefs and zemindars by British officers in the name of the Rajah. The engagements concluded with the zemindars of Chatisgurh, Chanda, and Deoghar or Chindwarra were guaranteed by article 2 of the treaty of 1829. In 1855, after the lapse of the Nagpore State to the British Government, some enquiries into these tenures were made, and in some cases the old sunnuds were informally renewed, but the only material change effected in the position of the zemindars was the gradual restriction of their judicial powers. (12) *Saugor and Nerbudda chiefs.*—The Saugor and Nerbudda chiefs, though their treatment by the Mahrattas had been in some respects different from that of the Nagpore zemindars, held eventually much the same position as the latter. (13) *Sumbulpore and Patna chiefs.*—The Sumbulpore and Patna, or Goorjat, chiefs were at first independent, but were subsequently held in subordination to the Maharajah of Patna, the most powerful of their number. In later times he was compelled to share this supremacy with the Maharajah of Sumbulpore. The chieftainships which formerly owed allegiance to Sumbulpore and Patna were, including those two, eighteen in number, and the country was known as the Attrah (18) Ghur just as that to the west was and still is called the Chuttees (36) Ghur: hence it has been conjectured that the Hyhybunsee dynasty, whose capital was Chatisgurh, ruled also over the Sumbulpore and Patna Goorjats. In 1755 these territories fell under the dominion of the Mahrattas, but were ceded to the British Government by the treaty of 1803 with Raghojee Bhonslay. With the exception of Rajgurh, the chief of which state was, as a reward for his fidelity and services, declared to be under the special protection of the British Government, all these states were restored to the Mahrattas in 1806. But in 1818 they reverted to the British Government, and were finally ceded by the treaty of 1826. Advantage was taken of the circumstances under which Sumbulpore, Patna and their dependencies were found on their cession to annul the dependency of the other zemindars on these two chiefs, and in 1821 separate sunnuds were granted by Government to each zemindar, and separate engagements taken. The Government from the first declined to issue any definite rules for the guidance of the chiefs. The general line of policy to be adopted alone was indicated. The ascertained and generally admitted rights of the Rajah and the various classes of his subjects, and all customs of the country that were not incompatible with the usages of civilized nations, were to be strictly maintained. In regard to tribute it was determined to adopt generally a lower scale than that which was levied under the Mahratta Government. Except with Rajgurh, with which a final settlement was made in 1819, the settlements were all made for a limited period. They were renewed in 1827, but though the engagements entered into in that year were nominally for five years only, they were not renewed at the expiration of that period. Separate engagements were at the same time taken from each chief, binding him to the right administration of the judicial and police powers entrusted to him. In practice the powers of the chiefs in criminal cases were limited to the infliction of seven years' imprisonment. Of the original Attrah (18) Ghur, eleven only remain attached to the Central Provinces. Of the Sumbulpore group, Sumbulpore proper escheated to Government in 1849, and Chunderpore is no longer managed by a chief. On the abolition of the South-Western Frontier Agency in 1837, Boad and Atmullick were transferred to the control of the Superintendent of the Tributary Mahauls of Orissa and still remain under his charge. In 1833 the zemindar of Burghur was convicted of rebellion, and his estate was conferred on Deonath Sing, Rajah of Rajgurh, who was thenceforth considered chief of Rajgurh *cum* Burghur. On the formation of the Central Provinces' administration, the states of Gangpore and Bonay, of the Patna group, remained as before attached to the Chota Nagpore division of Bengal. (14) *Classification of chiefs and zemindars in 1867.*—In 1867 further enquiries into the status of the chiefs and zemindars of the Central Provinces resulted in a declaration of the liability of all except Rajgurh to an enhancement of tribute, and in their classification into two divisions, the one comprising chiefs of the rank of feudatories, the other those whose position was merely that of British subjects. Fifteen chiefs were declared to hold the position of feudatories, and sunnuds of adoption were issued to such of these chiefs as had not received them. Acknowledgments of fealty were also taken from them. These chiefs exercise full civil and revenue powers in their states: in criminal cases sentences of capital punishment are subject to confirmation by the Commissioner of Chatisgurh. They and their subjects are not amenable to British laws for acts done or property possessed in their states. They are under the political control of the Chief Commissioner. (15) *Tributes of the Goorjat chiefs.*—Advantage was taken of the enquiry into, and definition of, the status of the chiefs and zemindars of the Central Provinces to declare the intention to revise from time to time the tributes payable by the Goorjat chiefs. This was accordingly done, and the tributes were revised for a period of 20 years commencing from 1867, and sunnuds setting forth the same conditions as those contained in the acknowledgments of fealty taken from the Nagpore and Saugor feudatories were issued to them. (16) *Special settlement with Zemindars of Chanda.*—The exceptional position of the non-feudatory zemindars of Chanda, in that they were responsible for the management of, and maintenance of order in, large tracts of country, led to the issue to them in 1867 of sunnuds defining their tenure, the mode of succession, their duties as managers and kindred subjects. Similar sunnuds were issued to the zemindars of Chatisgurh and to those of the Balaghaut. (17) *The fifteen feudatory states of the Central Provinces.*—Particulars will now be given for the fifteen feudatory states of the Central Provinces. *Khyragurh.*—This family is a branch of the old Gond dynasty of Mundla. In 1755 the Mahrattas levied a tribute of 15,000 Nagpore rupees, and this amount was at various times raised, till at the lapse of the Nagpore State to the British Government in 1854 it stood at nearly 39,000 Company's rupees. In 1867 the tribute was again revised and fixed at Rupees 47,000 per annum for a period of 20 years. In 1865 the chief of Khyragurh received a sunnud guaranteeing to him the right of adoption. In 1869 the tyranny and oppression of the ruling chief, Laul Futteh Sing, led to his removal from power and the assumption of the management of the state by the British Government. Lall Futteh Sing died in 1875. The area of Khyragurh is about 950 square miles; its population 122,264 souls; and revenue Rupees 1,17,635. The military force consists of 50 cavalry and 100 infantry. *Nandgaon.*—The country comprised in this chiefship was conferred in 1723 by Raghojee Bhonslay on a religious devotee, named Ram Doss. Celibacy being one of the observances of the sect to which Ram Doss belonged, the succession is maintained by adoption. A sunnud conferring the right of adoption has been granted to the chief of Nandgaon. The area of Nandgaon is about 884 square miles; the revenue of the state amounts to Rupees 90,097; the population to 148,454 souls. The tribute was revised in 1867, and fixed at an annual payment of Rupees 46,000 for a period of 20 years. The military force of the chief consists of 100 cavalry and 500 infantry. *Kondka or Choee Kuzan.*—This chiefship is also held by a religious family; it was conferred on Roop Doss in 1750 by Madhojee Bhonslay. Marriage is permitted in the sect to which this family belongs. The chief has been granted a sunnud conferring on him the right of adoption. The area of Choee Kuzan is 175 square miles; the population is 29,590; revenue Rupees 22,032. This state pays a tribute fixed in 1867 for 20

12. The Central Provinces are controlled by a Chief Commissioner, who has ordinarily the powers of a local Government, and exercises complete control over all departments and branches of the administration, aided by a Secretary and an Assistant Secretary. The civil and criminal courts are under a Judicial Commissioner. The administrative staff consists of 4 Commissioners, 19 Deputy Commissioners, 17 Assistant Commissioners, 24 extra Assistant Commissioners and 50 Tahsildars. The other departmental heads are a Sanitary Commissioner and

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years at Rupees 11,000. There is a small force of 30 horse and 331 foot. *Kawurdah* is held by a branch of the Pundurrea family, and was conferred for military services by Raghojee Bhonslay. The elder branch of the Kawurdah family holds the zemindarry of Pundurrea, to which the son by a senior wife succeeds to the exclusion of his elder brother by a junior wife. By this custom Ram Sing, a younger son, but by a senior wife, became zemindar of Pundurrea. On the extinction in 1863 of the younger or Kawurdah branch of the family, Ram Sing's elder brother, Bahaudur Sing, was recognized as chief of Kawurdah, but died shortly afterwards when he was succeeded by Ram Sing's elder son by a junior wife, Rajpaul Sing. This chief has been granted a sunnud conferring on him the right of adoption. The tribute originally fixed at Rupees 2,000 was subsequently more than quadrupled by the Bhonslay family: it was revised in 1867 for 20 years, and now stands at Rupees 16,000. The area of Kawurdah is 887 square miles; its revenue Rupees 53,650; the population is estimated at 75,462 souls; there is no military force. *Bustar*.—This family is said to have been driven from Warangal in the Deccan by the encroachments of the Mahomedan power early in the 14th century. In 1777 the Rajah of Bustar was driven out of his territories by his brother and took refuge with the neighbouring chief of Jeypore, to whom in return for assistance in recovering his territories he ceded on certain conditions the pergunnah of Cotapaud. In 1782 hostilities broke out between the two states in consequence of the non-fulfilment by Jeypore of the conditions of the cession. The Bustar chief died before he could recover the whole pergunnah, and as Bustar at this time failed in its payment of tribute to Nagpore, that Government took possession of the pergunnah and subsequently granted it to Jeypore, on condition of furnishing military aid against Bustar when required. The constant raids and reprisals between the two states kept the country for many years in a state of anarchy. In an agreement taken by the Nagpore Government from the chief of Bustar on the occasion of a revision of the settlement of the Chatisgurh district, the latter bound himself to pay an annual tribute of 5,000 Nagpore rupees, subject to a remission of Rupees 1,000 so long as the Cotapaud pergunnah should remain separated from his territories. Claims to the restoration of Cotapaud were more than once put forward by Bustar, but in 1863 it was finally decided that the British Government, which had succeeded to the rights of the Nagpore State, should receive Rupees 3,000 per annum from the Jeypore chief, in return for which he was to retain Cotapaud and be exempt from the condition of military service attached to the original grant. Of this sum Rupees 2,000 are paid to the Rajah of Bustar in money, and the remainder in the form of a continued remission of tribute, which now stands at Rupees 3,056 per annum, i.e., 4,000 Nagpore rupees, the amount of the tribute fixed in 1819 after deducting the remission. The chief of Bustar received a sunnud of adoption in 1862. The area of Bustar is about 13,000 square miles; its population 78,856 souls; and revenue Rupees 92,135. The chief has a military force of 50 infantry. *Karonde or Kalahundy*.—Under the Mahrattas this state paid a tribute of Rupees 5,330 in Nagpore coin, but the amount was reduced to Rupees 4,500 under the last Rajah of Nagpore. Subject to Karonde is the petty chiefship of Thooamul held by a branch of the Karonde family. The Thooamul family again is divided into an elder or legitimate, and a younger or illegitimate branch: the head of the former succeeding to the chiefship with the title of Paut Rajah, the head of the latter to the administration of the country with the title of Taut Rajah. This custom led to constant feuds between the Taut and Paut Rajahs: disputes also occurred between Karonde and Jeypore occasioned by claims of the latter to supremacy over the pergunnah of Kasheepore, a part of Thooamul. The Nagpore Government therefore determined to separate Thooamul from Karonde and to leave its administration in the hands of the Taut Rajah. These orders were confirmed by Government in 1862 and the claims of Jeypore to Kasheepore were at the same time disallowed. In 1866, however, it was found that the disputes between the Paut and Taut Rajahs still continued. Thooamul was therefore divided between them, the Taut Rajah retaining Kasheepore and paying a proportionate share of the tribute. The territory under the Paut Rajah was restored to the jurisdiction of the chief of Karonde, and the remaining territory was given as a separate zemindarry to the Taut Rajah. In 1869 the Taut Rajah also was placed under the feudal control of the Karonde chief. Oodid Prataup Deo, chief of Kalahundy (Karonde) died on the 19th April 1881 and the claims of Rajah Ram Mohana Sing (Ragho Kishur Deo), a minor eight years old, were recognised by the Governor-General in Council. A sunnud of adoption was granted to the chief of Karonde in 1862. The tribute paid by Karonde is Rupees 3,500; its area is 3,745 square miles, with a population of 132,483 souls. The revenue amounts to Rupees 20,000. The chief has no military force. *Kakeir*.—This state was held by the Mahrattas on the condition of furnishing 500 men for the service of the Government free of expense whenever required to do so. In 1809 the then chief was deprived of Kakeir, but was in 1818 restored to it under the authority of the British Resident at Nagpore on payment of an annual tribute of Rupees 500. This was remitted in 1823, in consequence of the Government having résumed the sayer duties formerly levied by the chief, who therefore pays no tribute. The present chief has received a sunnud granting him the right of adoption. The area of Kakeir is about 1,000 square miles; the population 43,552 souls; the revenue amounts to Rupees 15,000. The chief keeps up a force of 180 foot soldiers. *Makrye*.—This petty chiefship struggled with varied fortune against the Peshwa, Scindia, and the Pindarries, but was eventually taken under British protection. The chief receives Rupees 2,243-14-5 as compensation for the loss of transit dues; he pays no tribute to Government. A sunnud of adoption was conferred on the chief in 1862. The area of Makrye is estimated at 215 square miles; its revenue 22,000 rupees, and population 13,648 souls. *Suktee*.—This state was held as a tributary to the Maharajahs of Sumbulpore. The chief was deprived of all power in 1875 for gross oppression and attempts to support false representations by means of forged documents: the management of the state has been assumed by the British Government. The chief has received a sunnud granting him the right of adoption. The area of Suktee is 115 square miles; the population 8,394 souls. The revenue amounts to Rupees 8,131. A tribute, fixed at present at Rupees 350 is paid to the British Government. *Sarunghur*.—The chief has received a sunnud granting him the right of adoption. This small state has an area of about 540 square miles: the revenue is Rupees 8,000, and the tribute now paid amounts to Rupees 1,400. It has a population of 37,091 souls. *Rajghur* cum *Burghur*.—Deonath Sing, on whom the zemindarry of Burghur had been conferred in 1833, on the conviction of its holder of rebellion, and who rendered good service in 1857, died in 1862, and was succeeded by his son, Gunsham Sing, who received a sunnud granting him the right of adoption. The tribute paid by this state is now Rupees 400. Rajgurh is held under a permanent settlement. Rajgurh *cum* Burghur is 1,486 square miles in area, with a population of 63,304 souls, and a revenue of Rupees 7,500. *Bamra*.—Tribohun Sing, chief of Bamra, died in May 1869, and was succeeded by his nephew, Soodhal Deo. The chief has received a sunnud conferring on him the right of adoption. The area of Bamra is about 1,988 square miles, its population 53,613 souls, and revenue Rupees 6,000. A tribute of Rupees 340 is at present paid to the British Government. *Rehracole*.—The chief of this state had not at first been included in the list of feudatories on the ground of his maladministration. This was subsequently ascertained to have been due to the acts of one of the chief's brothers who managed the state for him during his illness, and as the chief had shown conspicuous loyalty in 1857, he was recognized as a feudatory and received a sunnud of adoption accordingly. The area of Rehracole is about 833 square miles; its revenue Rupees 6,000; population 12,660 souls. The chief pays a tribute at present fixed at Rupees 580. *Sonapore*.—This family is an offshoot from the former ruling house of Sumbulpore. The present chief, Neeladhur Sing Deo, succeeded when a minor. The title of Bahaudur has been conferred on him for services to the British Government. He has received a sunnud granting him the right of adoption. The area of Sonapore is 1,000 square miles, with a population of 130,713 souls: the revenue amounts to Rupees 18,000. The tribute paid is now Rupees 5,000. *Patna*.—Heerabujjur Deo, Maharajah of Patna, died in August 1866, and was succeeded by Sur Prataup Deo. In 1869 the tyranny of the chief and of his brother, Laul Bishnath Sing, produced a rising among

Deputy Surgeon-General, a Commissioner of Customs, and 4 Commissioners of Revenue and Circuit, an Inspector-General of Police and Prisons, an Inspector-General of Education, a Conservator of Forests, a Director of Agriculture, and an Inspector-General of Registration, who is also Commissioner of Excise and Stamps. The whole administration is directly subordinate to the Government of India. There are fifteen native or feudatory states lying within the Central Provinces, which are protected and controlled by the Chief Commissioner, to whose confirmation the orders of the native chiefs in matters of life and death are subject. Each state is ruled according to its own laws and customs and British law is not in force. Bustar, Kalahundy (or Karonde), and Makrye States are the principal of these. Bustar has an area of 13,062 square miles and a population of 190,000 chiefly Gonds. The chief town is Jagdalpore. Kalahundy has an area of 3,745 square miles and a population of 105,000. The Rajah, a Rajpoot, has a revenue of about 80,000 rupees. Makrye has an area of 215 square miles and is under a Gond rajah.

13. The Central Provinces skirt the agency or scheduled tracts of the Ganjam, Vizagapatam, and Godavery districts, but on account of the hilly nature of the country which intervenes they have much less connection with this Presidency than have the Nizam's dominions. The Godavery river rises near Nassick in the Bombay Presidency and after forming the borders of the Central Provinces for 150 miles flows through the Godavery district and enters the Bay of Bengal near Cocanada. The Great Indian Peninsula Railway enters the Central Provinces at Boorhanpore in the district of Nimar terminating at Jubbulpore, where it joins the "Jubbulpore Extension" of the East Indian Railway, which enters the provinces at Undarra station; the Nagpore branch of the Great Indian Peninsula line branches off from it at Bhosawal, and after passing through Berar reaches Nagpore. A branch line, 45 miles long, called the Wurdah Valley State Railway, runs from Wurdah station to Warora viâ Hinganghaut. The Holcar State Railway to Mhow and Indore runs from Khandwa station of the Great Indian Peninsula Railway, while a branch from the Gadawarra station of the same line connects the town of Mohpany. The Nagpore and Chatisgurh State Railway running from Nagpore to Calyauny, a distance of 125 miles, is now under construction. A line connecting Raupore with Vizagapatam, a distance of 372 miles, is being surveyed. Nagpore, the capital of the Central Provinces, is 565 miles north-west of Madras and is on the direct line of railway gradually being completed between Calcutta and Bombay. The civil station of Seetabuldee is on the north and west of Nagpore. The town and military cantonment of Kamptee is 9 miles north of Nagpore. This is a first-class brigade command under Madras. Chanda contains the tombs of the old Gond kings.

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the wild Gonds of Patna. They were speedily reduced, but not until Laul Bishnath Sing and his followers had committed many atrocities in cold blood. For these crimes Laul Bishnath Sing was removed from Patna and an enquiry into the causes of the outbreak led to the deposition of the chief and the assumption of the management of the State by the British Government. This occurred in 1871. The chief of Patna has received a sunnud granting him the right of adoption. Maharajah Sur Prataup Deo is a Chohan Rajpoot, and the twenty-sixth representative of the family. The area Patna is 2,399 square miles, with a population of 98,636 souls; the revenue is Rupees 25,000; a tribute of Rupees 600 has been fixed for 20 years from 1867. (18) *Rajah of Phooljhur.*—To the group of feudatory states belongs the Rajah of Phooljhur, who, although not a feudatory, is a zemindar of considerable importance. In 1854 Rajah Sewuk Sahye died; his next heir Jug Sahye, a minor, was the offspring of a Phoolbyah marriage and his legitimacy was questioned. Enquiry showed that such marriages were considered valid; Jug Sahye was therefore recognized zemindar of Phooljhur and received the title of rajah, which the head of the family had always borne. Jug Sahye died in 1866, and was succeeded by his eldest son, Shoor Sing. (19) *Disturbances in Sumbulpore.*—In 1862 disturbances occurred in the Sumbulpore district, caused by the intrigues of Soorunder Shah, a relative of the last Maharajah of Sumbulpore. This man had successfully stirred up a rebellion in the Sumbulpore districts in 1857 and subsequent years, but surrendered on conditions, and was permitted to reside under surveillance at Sumbulpore. Soon afterwards with the idea of possessing himself of the sovereignty of Sumbulpore, he organized marauding bands who committed great atrocities in the Sumbulpore districts. For these offences he was detained as a political prisoner in the fort of Asseergurh and the disturbances ceased. (20) *Transfer of Nimar.*—In May 1864 the British portion of Nimar was transferred from the Central India Agency to the Central Provinces. The tracts forming this district have come under British administration at different times. Those lying on the banks of the Nerbudda became British territory in 1818, and in 1823 the greater part of Scindia's possessions in Nimar came under British management. In 1860 certain territorial exchanges were effected with Scindia by which the sovereignty of the British Government in Scindia's Nimar was confirmed and Boorhanpore and Zeinabad were also ceded by him. Some parts of Nimar belonged to Holcar, while outlying portions of the British districts were surrounded by his territory. As this gave rise to inconvenience it was resolved to exchange the detached districts held by the British Government in the western portion of Nimar for Holcar's possessions in the Deccan. The exchange was finally completed in 1867. The pergunnahs of Burwye, Dhurgaon, and Mundleisur, north of the Nerbudda, and of Kusrawad including the lapsed jagheer of Chota Kusrawad, south of that river, of an aggregate annual value of Rupees 45,500, were accordingly made over to Holcar. The transfer of Burwye was accompanied by the condition that Holcar should abolish his transit duties on the line between Indore and the great Indian Peninsula Railway in Nimar. In 1865 sunnuds were issued to the zemindars of Nimar conferring on them grants of lands or money in compensation for the loss of the emolument attached to certain hereditary offices, the duties of which they formerly discharged.

Warora is the chief colliery centre and terminus of the Wurdah Coal State Railway. On the 1st April 1874 the two talooks of Bhadrachellam and Rekapully in the Upper Godavery district of the Central Provinces, having an area of about 885 square miles, were transferred to this Presidency. They now form part of the scheduled tracts under the jurisdiction of the Collector of the Godavery. Wurdah is a cotton-producing district. Hinganghaut is the chief cotton mart of Central India. Jubbulpore is the junction of the Great Indian Peninsula and East Indian Railways. In the fort of Saugor, Europeans were shut up in 1857 by mutinous sepoys till relieved by the Central India Field Force under Sir Hugh Rose. Pachmurhy is known as a sanitarium, but is not much used from this Presidency. Boorhanpore was taken by Wellington in 1803. At the border fort of Asseergurh the last of the Peshwas surrendered to Malcolm in 1818. Raupore district is the largest in the Central Provinces. The chief town is Raupore on the line of railway being made to Calcutta by Sumbulpore. The Central Provinces possess eight separate coal-fields; at Bunder, Wurdah, Warora or Chanda, Keinaram, and Singareny in the Godavery valley; at Shahpore in the Betool district; and at Mohpany, Tawa, and Pench in the Sautpoora region. All these are probably destined sooner or later to supply the South of India. The language spoken in the Central Provinces is mainly the Hindee of Northern India; but Mahratta is talked by a very large population in the south-west, Ooriyah is spoken in the east, and Teloogoo is spoken in the south and south-east. There are also about two millions of aborigines who speak Gond, Bheel, and other languages. The Gond is a Dravidian tongue, and the Bheel a Kolarian. There are about two millions of primitive races consisting of Gonds, Kolarian Bheels, and Koors or Koorkoos. The military stations of the Nagpore Force garrisoned by the Madras army are Kamptee (head-quarters), Chanda, Hoshangabad, Raupore, Seetabuldee, Sironcha, Pachmurhy (sanitarium), and Sumbulpore; other military stations are Jubbulpore, Saugor and Satna.

14. As above mentioned the connection of the Central Provinces with the Madras Presidency has been limited on account of the hilly nature of the country between them, this reason restricting the number of routes open; and the fact that the inhabitants living near the boundaries are either uncivilized Khonds or other hill-tribes or barely civilized Hindoos has farther tended to prevent the development of trade. Up to the last five years, all the trade that existed was carried on by the Brinjarries of Chatisgurh and Raupore, who from their settlements in the Central Provinces annually marched down with thousands of bullocks laden chiefly with wheat, cotton, Bengal-gram, and oil-seeds through the Ganjam Maliahs, Jeypore and Rumpa to the salt depôts of the Ganjam, Vizagapatam and Godavery districts, returning laden with salt. Within the last five years, however, communication with the Ganjam district has been greatly improved. A fair cart road has been opened to Sumbulpore and this is used by Ganjam merchants to reach many other parts of the Central Provinces besides Sumbulpore. It is further in contemplation to complete as a cart road the direct road towards Raupore from Ganjam. The security now given to person and property in the hilly borders and the safety of the roads have introduced these and other traders who are gradually supplanting the Brinjarries. They carry salt to the Central Provinces and bring down on bullocks in addition to the produce above-mentioned horns and iron, and from Kalahundy, by coolies, ghee. Similarly petty traders of Sumbulpore and Raupore visit the markets in the hills bringing cloths and iron and return with the proceeds in money and to some extent in turmeric. The Vizagapatam littoral is now being placed in communication with Chatisgurh. A cart road has been constructed to the summit of the Eastern Ghauts at Saulore, and carts will soon be able to penetrate by this route to Dhantery of the Raupore district, passing through the Jeypore zemindarry, where Magistrates and Police afford protection to the trader. The distance from Raupore to Vizagapatam is 334 miles, that is to say 236 miles from the sea-coast to the border of the Central Provinces and 98 miles thence to the town of Raupore. Bustar teak is largely imported into the Godavery district by the Godavery and Severy rivers. Gall-nuts and Bengal-gram are taken in large quantities to Doomagoodem in the Bhadrachellam talook, where they are either sold or exchanged for salt.

15. MYSORE.—The high table-land of Mysore, [3] rising between the two coasts of southern India, is bounded on each side by the chains of the ghauts. Its general level is about 3,000 feet above the sea, and it is diversified by many hills branching out from the boundary chains. This elevation, and the coolness which it maintains, renders Mysore the most agreeable and healthful country of India. The Western Ghauts break the force of the monsoon floods which are

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[3] SKETCH HISTORY OF PAST POLITICAL RELATIONS WITH MYSORE.—(1) *Establishment of present dynasty.*—The present dynasty of Mysore dates from the commencement of the fifteenth century when two brothers, Vijaya Raj and Krishna Raj, came to Mysore and established a rule which, commencing with a few villages, now comprises the Mysore territory. The ninth chief in succession took the fortress of Seringapatam from the Vijianugger dynasty, and speedily enlarged his possessions, which under him and his successors comprised in 1704 an area of 15,000 square miles, with a revenue of fifty lakhs of rupees. The direct descent failed on the death of Dodda Krishna Raj in 1731, and thenceforth the real power remained in the hands of the hereditary general of the forces by whom the Rajahs of Mysore were selected. (2) *Deposition of the Wodeyar family by Hyder Ally.*—The first intercourse between the British Government and Mysore was during the struggle for the supremacy of the Carnatic, at which time Mysore was still under Hindoo rulers. In this war Hyder Ally, who was destined to supplant the native dynasty, commanded a force which the Maharajah of Mysore had sent to take part in the operations at Trichinopoly. It is unnecessary here to trace the various steps of Hyder Ally's career. By intrigue and force he soon raised himself to the chief power in Mysore, and deposed the Hindoo ruler, Chikka Krishna Raj Wodeyar. In 1763 the Bombay Government had concluded a commercial treaty with him, and in 1766, after his conquest of Malabar, Hyder Ally confirmed all the grants and privileges made to the Bombay Government by the Malabar powers. The rapid extension of the conquests of Hyder Ally over the neighbouring districts made his power dangerous to the peace of the Company's possessions in the Carnatic. Therefore, in the treaty concluded with the Nizam in 1766, the English agreed to assist him with a force against Hyder. Scarcely was the treaty concluded when the Nizam deserted the alliance and joined Hyder Ally in invading the Carnatic. Their united forces were defeated, and the Nizam was detached from the alliance with Hyder by the treaty of 1768. Hyder Ally however prosecuted the war alone, and in the following year, after sustaining severe reverses, and not feeling himself very securely established in his own territories, he evinced a disposition for peace. His overtures were not received. In 1769, by a rapid movement of his cavalry, Hyder Ally appeared within five miles of Madras, and the English, fearing the plunder of the town, concluded a treaty with him in April 1769 on the footing of mutual restitution of conquests and alliance in defensive wars. The treaty with the Madras Government was followed on 8th August 1770 by a treaty between the Bombay Government and Hyder. Its provisions were chiefly of a commercial nature. (3) *War between Hyder Ally and the Mahrattas.*—Under the treaty of 1769 Hyder Ally claimed assistance against the Mahrattas with whom he was at war, but his request was refused on the ground that he had been the aggressor by withholding the chowt which was due. He was reduced to great difficulties by the Mahrattas and was glad to make peace on very disadvantageous terms. During the distractions at the Poona Court Hyder recovered most of the territories which had been wrested from him by the Mahrattas, but he never forgave the English for refusing him assistance in his difficulties. (4) *War between England and France.*—When war was declared between England and France in 1778, it was determined to drive the French from all their possessions in India. Chandernagore, Masulipatam, Caricaul, and Pondicherry surrendered without resistance, and there remained to the French only the small station of Mahé on the Malabar coast. Mahé was situated in the territories of a petty chief who was tributary to Hyder Ally, and the British Government resolved to attack it, notwithstanding the threat of Hyder Ally, to retaliate by an invasion of the Carnatic. The place was taken in 1779. Hyder Ally as well as the Nizam was further irritated by the arrangements made with Basaulat Jung respecting the Goontoor Circar. Having collected a large force he burst into the Carnatic in 1780, when the British Government were pressed for money and troops and ill-prepared to meet him. Notwithstanding many brilliant successes in the campaign which ensued, the British army was so crippled by a defective commissariat that it could effect nothing decisive. As a means of supporting the military operations by creating a revolution in Hyder's territories, the British Resident at Tanjore entered into secret negotiations for the restoration of the Hindoo dynasty. A Brahmin, named Trimal Row, who had for some years resided at Tanjore and had held office in Mysore under the Hindoo Government, was supposed to possess political powers from the imprisoned Ranee. With him a treaty was concluded on 28th October 1782 on the Ranee's behalf. Its principal provisions were the restoration of the Hindoo family to power, the payment by the Ranee of stipulated contributions for the assistance of British troops, the future protection of the country by a British force, and the payment through the British Government of the tribute due from Mysore to the Moghul and the Mahratta chowt. (5) *Tippoo Sultan, son of Hyder Ally.*—Shortly after the conclusion of this agreement, Hyder Ally died on 7th December 1782, but the war was prosecuted with unabated energy by Tippoo Sultan. To further the objects of the secret treaty a conspiracy was formed at Seringapatam for the release of the English prisoners, the seizure of the fort, and the proclamation of the Hindoo Rajah. But the conspiracy was discovered on the night preceding the concerted rising. Every one concerned or suspected of being concerned in it was put to death. The treaty led to no practical results, and there is every reason to believe that the Ranee knew nothing of the treaty which had been concluded in her name, or the conspiracy which had been formed for the overthrow of Tippoo's government. (6) *Treaty of Mangalore.*—Tippoo Sultan received vigorous support in the war from the French, between whom and Hyder Ally there had always been a close friendship. But the declaration of peace between England and France, and the consequent withdrawal of the French troops, left him too weak to prosecute hostilities alone. A treaty of peace was therefore concluded at Mangalore on 11th March 1784. In this treaty the Rajahs of Tanjore and Travancore and the other allies of both parties were included. The basis of the treaty was the mutual restoration of conquests, and the confirmation to the British Government of all the privileges granted them by Hyder Ally. The conclusion of this treaty nearly produced a rupture with the Mahrattas, who considered it a violation of the Treaty of Salbye. (7) *Tippoo's attack on Travancore.*—In 1789 Tippoo approached the country of Travancore, then in alliance with the British Government, to recover Cranganore and Jycottah, which, being the key to Travancore, the Rajah had purchased from the Dutch, but which Tippoo alleged to form part of Cochin and to be tributary to him. His attack on the lines of Travancore failed, but the attack was considered by the British Government as a declaration of war and a violation of the treaty of 1784, in which the Rajah of Travancore was included by name. The war which followed was closed in February 1792, when Tippoo Sultan threw himself on the mercy of his conquerors and gave his two sons as hostages for the conclusion of a preliminary treaty. The treaty was definitely concluded on 18th March 1792 at Seringapatam. Tippoo was by this treaty stripped of half his territories and required to pay three crores and thirty lakhs of rupees, and was bound not to molest the poligars and zemindars who had been serviceable in the war. The territories taken from Tippoo were divided equally between the British Government, the Nizam, and the Peshwa, in pursuance of the triple alliance which had been formed in 1790 to reduce his power. (8) *Death of Tippoo.*—When hostilities broke out between the Mahrattas and the Nizam in 1795, Tippoo Sultan, who had commenced intrigues with the French, the Mahrattas, and the Nizam almost immediately after the peace of Seringapatam, assembled his army and threatened to join the Mahrattas against Hyderabad. In 1798 he sent ambassadors to the Isle of France to raise volunteers for the purpose, publicly avowed and proclaimed, of expelling the British from India. The remonstrances of Lord Wellesley were ineffectual to induce Tippoo to come to friendly arrangements, and in February 1799 it became necessary for the armies of the British Government and the Nizam to march against him. The war was terminated on 4th May by the fall of Seringapatam and the death of Tippoo, who fell bravely defending the fort. (9) *Restoration of the Hindoo dynasty.*—In disposing of the conquered territories, it was considered that the partition of them between the British Government and the Nizam would afford just ground of jealousy to the Mahrattas and aggrandize the power of the Nizam beyond due limits. It was therefore resolved to create a central and separate government in Mysore, and to bestow a portion of the territories on the Mahrattas, although they had taken no part in the war, on condition that the grant should form the basis of a new treaty with the Mahrattas. The family of

impelled against them from the Indian Ocean, at the same time allowing enough to pass for fertilising the territory. It is accordingly well-fitted for yielding the fruits and agricultural products of India, combined with some which belong to temperate climates. The present Mysore State is surrounded by the Madras Presidency except on the west where the Bombay districts of Dharwar and North Canara on the north-west and Coorg on the south-west form the boundaries.

Tippoo were set aside and the Hindoo dynasty restored at Mysore under Krishna Raj Wodeyar, a child of three years of age, the grandson of the prince deposed by Hyder Ally forty years before. The districts on the sea coast of Mysore and provinces adjoining the British territories in Malabar and the Carnatic, yielding 7,77,170 pagodas, were reserved by the British Government. The districts of Goorramcondah, Gooty, and others contiguous to Hyderabad, yielding 6,07,332 pagodas, were assigned to the Nizam. Provinces yielding 2,63,957 pagodas were offered to, but rejected by, the Peshwa, and subsequently shared between the British Government and the Nizam; and the young Maharajah was put in possession of territory yielding 13,74,076 pagodas. Krishna Raj Wodeyar was not a party to the partition treaty of Mysore (see the article on Hyderabad) otherwise than as the notified future recipient of the liberality of the British Government. To give effect to its liberal intentions the British Government concluded a subsidiary treaty with him to which the Nizam was not a party. The subsidiary treaty provided for the location in the Mysore territory of a British subsidiary force for which the Maharajah was to pay seven lakhs of pagodas a year; reserved to the British Government the right to assume the whole or part of the Mysore territory, if there should be cause to apprehend failure in the payment of the subsidy; required the Maharajah to contribute, to meet the extraordinary expenses of war, such a sum as should be considered to bear a just and reasonable proportion to his revenues; and bound him to good government. (10) *Tippoo's descendants.*—The descendants of Tippoo were removed to Vellore, where they were liberally provided for. After the mutiny at Vellore, in which they were believed to be concerned, they were removed to Calcutta where they continued to reside as stipendiaries of the British bounty till 1860, when a large sum was capitalized as a provision for them, with a view to terminate their dependence on the liberality of the British Government and to absorb them in the general mass of the population. (11) *Exchanges of territory.*—In 1803 a supplementary treaty was formed to effect certain exchanges of territory with Mysore; and in 1807 the sum which the Maharajah was required to contribute to meet the ordinary expenses of war was commuted to the maintenance by the Maharajah of a fixed body of horse in peace and war. (12) *Assumption of the direct management of the state by the British Government.*—During the minority of the Maharajah, the administration was conducted by an able Brahmin minister named Poorniah, who was invested with full powers of administration. He continued in office till 1812 when he resigned the government into the hands of the Maharajah, leaving in the treasury a sum exceeding two crores of rupees. By a continued course of misgovernment the Maharajah drove the greater part of his subjects into rebellion to the danger of the peace of the neighbouring British districts, and in 1831 it became necessary for the British Government to interfere. The Maharajah had dissipated all the treasure acquired by the Diwan Poorniah and involved himself deeply in debt. Notwithstanding promises to put restraint on his vicious expenditure, he had alienated revenues and sold exclusive privileges and state offices to raise funds for his extravagance. The pay of his troops was in arrears. Extortions and cruelties were practised for which there were no means of redress. The ryots combined in resistance, and at last rebellion broke out, calling for the active exertions of a large British force in addition to the whole military power of the Maharajah. So gross was the mismanagement and maladministration, that it was deemed necessary for the British Government, under the provisions of the treaty of 1799, to assume the direct management of the State, subject to the claim of the Maharajah, reserved by the treaty, to a provision of one lakh of star pagodas per annum and one-fifth of the net revenue realized from the territory, until arrangements for the good government of the country should be so firmly established as to secure it from future disturbance. (13) *The Maharajah's applications for the restoration of his state.*—In 1834 the Government of India proposed that the Maharajah should cede the districts of Nugger, Chitaldroog, and Bangalore, and as much territory as, after paying the expenses of management, would yield a revenue equal to their claims on the Maharajah, which amounted to about thirteen lakhs of pagodas a year; and that the remaining districts should be restored to the Maharajah under securities for good government. But to this the Home authorities objected. Numerous applications for the restoration of his state were made by the Maharajah. The reasons given in 1861 for the rejection of these applications were that the improvement which had been effected in the administration of Mysore had been effected in spite of counteraction on the part of the Maharajah and his partisans; that the grant of territories to the Maharajah under the subsidiary treaty of Mysore was made solely in virtue of powers acquired by the British Government by conquest and not of any hereditary rights of the Maharajah; that the conditions of the grant had been for twenty years flagrantly and habitually violated before the British Government interfered to enforce the remedy provided by the subsidiary treaty; that no expectation direct or indirect was held out that the Maharajah's authority would be restored in his lifetime under its former conditions, although language was used consistent with a purpose, at some future time and under conditions left undefined, to restore a Native Government, but not specifically that of the Maharajah; that the provisions secured by treaty to the Maharajah in the event of the resumption of his territories, which provision was a personal and not a hereditary one, had been fully secured to and enjoyed by him; that the obligations of the British Government to the people of Mysore were as sacred as its self-imposed obligations to the Maharajah; and that there was no security against a relapse into misgovernment if the Maharajah's authority should be restored. (14) *Appeal to the Home Government.*—In spite of this refusal the Maharajah continued to press his claims and appealed to the Home Government. After a careful consideration of the arguments brought forward by the Maharajah, the Home authorities were of opinion that the assumption of the administration of the Mysore territories was in accordance with the provisions of the subsidiary treaty, and that he could not as of right claim its restoration; further, that the reinstatement of the Maharajah in the administration of the country was incompatible with the true interests of the people of Mysore. (15) *Settlement of the Maharajah's debts.*—On this final decision being communicated to the Maharajah, he preferred several requests, one of which was that he might receive the surplus accumulated in the State treasury, and which under British management had reached the amount of 102 lakhs of rupees. Although this proposal could not be acceded to, it was resolved to free the Maharajah from the embarrassments into which, notwithstanding the settlement of his debts in 1844, he had again fallen. The claims against the Maharajah amounted to 55 lakhs of rupees, but they were compromised for rather more than 30 lakhs. (16) *Maharajah's right to adopt.*—Another request at this time preferred by the Maharajah was that his right to adopt might be recognized, and the Government should guarantee that Mysore should permanently remain a native state. The Government of India replied that the Maharajah had a full right to adopt so far as his private property was concerned, but that no authority to adopt a successor to the State of Mysore had ever been given to him, and that no such power could be accorded to him. (17) *Adoption of Chama Rajendra Wodeyar.*—In the propriety of this decision the Home authorities acquiesced. In June 1865, however, the Maharajah adopted Chama Rajendra Wodeyar of the Bettada Kotey branch of the ruling family of Mysore, then a boy under three years of age. The Government of India declined to recognize the adoption or to accord to the Maharajah's adopted son the honours and privileges due to the heir to the State of Mysore. In the following year the Maharajah again urged the question of the recognition of his adopted son, and his request met with a favorable response from the Home Government. Without entering into any minute examination of the terms of the treaty of 1799, the Home Government recognized in the policy which dictated that settlement a desire to provide for the maintenance of an Indian dynasty in Mysore upon terms which should at once afford a guarantee for the good government of the people and for the security of British rights and interests. Having regard to the antiquity of the Maharajah's family, its long connection with Mysore, and the personal loyalty and attachment to the British Government which the Maharajah had so conspicuously manifested, the British Government desired to maintain that family on the guddee in the person of the Maharajah's adopted son upon terms corresponding with those made in 1799 so far as the altered circumstances of the time would allow. But before replacing the people of Mysore, in whose welfare the British Government felt a peculiar interest owing to their having so long been subject to its direct administration, under the rule of a

Formerly North Canara was one of the districts of this Presidency, which thus almost wholly enclosed Mysore, and now does so within a little. The province lies between 11° 41′ and 15° 0′ N. latitude, and between 74° 40′ and 78° 30′ E. longitude. In extreme length it is 257 miles and in extreme breadth 238 miles. Its area is about 24,723 square miles with a population reduced by the famine of 1876–78 by 17 per cent. to 4,186,188 in 1881, and with a revenue (more than doubled under British administration) of something over 100 lakhs of rupees. It is naturally divided into two regions. On the west is the hill country called the Mulnaud, which borders on the Western Ghauts. The greater portion of the country lying on the east is the 'meidaun' or open country. In all parts of the country are found a large number of isolated rocks or droogs, which were in former days used as hill fortresses. Of these Nundidroog (4,810 ft.) and Savandroog (4,024 ft.) are the most important from a historical point of view. Certain streams in the north-west unite in the Sharauvaty and then descend the Western Ghauts in the great Gersoppah Falls, but most of the drainage of Mysore finds its way east to the Bay of Bengal in the Madras river systems of the Kistna, the Cauvery, the two Pennairs (in Nellore and South Arcot districts) and the Palaur. There are no natural lakes in Mysore, but the streams which gather from the hill sides are at every favourable point embanked in such a manner as to form series of tanks. The largest of these tanks, the total number of which is 37,682, is Soolekeray 40 miles in circumference. The State is well supplied with provincial and district roads. Through the Naickenairy Ghaut proceeds the principal road from east to west leading from Madras to Bangalore, and thence continued through Hassan, and the Munjarabad Ghaut to Mangalore. Through the Cauverypooram Ghaut passes the road from south-east to north-west, leading from Tanjore to Seringapatam. By this last the invasions of Hyder Ally and Tippoo were made on Tanjore and the Baramahaul. The principal passes through the Western Ghauts to North and South Canara are the Gersoppah, Colloor, Hyderghur, and Agoombe Ghauts in Shimoga; the Boond or Kodecull Pass in Cadoor; and the Munjarabad and Bisly Ghauts, just north of Coorg. A branch of the Madras Railway, 84½ miles long, runs from Jollarpett in the Madras district of Salem to Bangalore. The Mysore State Railway runs on from Bangalore to Mysore town and from Bangalore to

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Native prince, it would be necessary both to provide the young prince with an education calculated to prepare him for the duties of administration, and also to enter into an agreement with him as to the principles upon which he should administer the country. If at the demise of the Maharajah the young prince should not have attained his majority, the Mysore territory would continue to be governed in his name upon the same principles and under the same regulations as were then in force. (18) *Death of Maharajah Krishna Raj Wodeyar.*—Maharajah Krishna Raj Wodeyar, who was a Knight Grand Commander of the Most Exalted Order of the Star of India, died on the 27th March 1868 at the age of seventy-four. A proclamation was issued acknowledging the succession of Chama Rajendra Wodeyar, and stating that during his minority the Mysore territories would be administered in his name by the British Government, and that on his attaining the age of eighteen years, if he should then be found qualified for the discharge of the duties of his position, the government of the country would be entrusted to him subject to such conditions as might be determined at that time. The Maharajah was accordingly publicly installed by the Commissioner of Mysore on 23rd September 1868. The education of the young Maharajah was undertaken by a British officer. (19) *Surplus Mysore revenues.*—Between the date of the settlement of his debts in 1864 to the time of his death in 1868 Maharajah Krishna Raj Wodeyar had contracted further liabilities to the amount of 13 lakhs of rupees. These were met from the surplus Mysore revenues. It had been intended to set apart this surplus as a fund for the support of the relatives and dependents of Maharajah Krishna Raj Wodeyar after his death, but this was rendered unnecessary by the continuance of the ruling family in the person of the Maharajah's adopted son. (20) *Administration of the revenue.*—The account of the one-fifth of the net revenues of Mysore paid to Maharajah Krishna Raj Wodeyar during his lifetime under article 5 of the treaty of 1799, and which had for several years averaged 13 lakhs of rupees per annum, was closed at his death, and the whole of the revenues of Mysore are administered in trust by the British Government, a separate account as heretofore being kept of the provision made for the support of the Maharajah, his family and dependents, and the unappropriated balances being accumulated for the benefit of the Maharajah and State of Mysore. (21) *Revision of palace expenditure.*—The opportunity of Maharajah Krishna Raj Wodeyar's death was taken to revise the overgrown palace establishments. Of the large number of nearly 10,000 persons on the lists about one-third were retained, those whose services were dispensed with receiving either liberal pensions or gratuities in proportion to their age and length of service. Under the head of palace expenditure were also comprised religious and charitable allowances, honorary pensions, and the stipends payable to the widows, illegitimate grandsons, and other family connections of the late Maharajah. Of the latter there are three classes, the Ursoos or Rajbindees, who claim a common descent with the ruling family, the Coomaurs or illegitimate descendants of the Mysore chiefs, and the Shivachars or blood relations of those with whom illegitimate connections were formed. The stipends of the grandsons and male Ursoos are hereditary and amount to Rupees 1,18,000 per annum; the continuance or lapse of the stipends enjoyed by the others is regulated by a code of rules sanctioned by Government. By these arrangements the palace expenditure was reduced to nearly half its former amount. (22) *Sillahdar horse.*—The body of horse which is kept up under the treaty of 1807 has recently been reorganized. The full number required by the treaty, viz., 4,000 effective horse, has never been maintained. In 1862 the Sillahdar horse consisted of 2,500 men distributed in seven regiments. In May 1863 it was reduced to 2,100 men, the strength of each regiment being fixed at 300 men. In June 1867 it was still further reduced to 1,800 men by the abolition of one regiment, but the arrangement was sanctioned by Government on the distinct understanding that the obligation for the support of the entire number required by the treaty, should it at any time be deemed expedient to enforce that obligation, was not in any degree relaxed. The gradual reduction of the force to 1,500 men was sanctioned in 1868. Since then arrangements have been made for a further reduction of the force, which was too large for the requirements of the state. (23) *Mysore Barr.*—The Mysore Barr or foot is not kept up under any treaty, but is part of the old military establishments of the state.

Toomcoor, whence it will be continued by way of Tiptoor and Biroor to Harihar, there connecting with the Southern Mahratta Railway. The State itself is divided since 1863 into six districts. Bangalore district has an area of about 3,000 square miles and a population of 724,298. Bangalore, the chief town of the district, consists first of the cantonments, secondly of the pettah or old native quarter, which includes the fort. The fort was built in 1537 and reconstructed by Hyder Ally in 1761. The pettah was taken by the British on the 21st March 1791. The cantonments which were laid down in 1809 are about 3,000 feet above the sea. These, with the fort, now form the civil and military station. The Residency, the public offices in Cubbon Park, the Central College and the Maharajah's Palace are some of the principal buildings. Bangalore is the head-quarters of the Mysore division of the Madras Army. It is also the terminus of the Mysore branch of the Madras Railway. The railway station is 216 miles west of Madras city. Devanhully, at the siege of which Hyder Ally first came into notice and where his son Tippoo was born, was taken by Lord Cornwallis in 1791. Savandroog or Maugady (4,024 ft.), a hill-fort, was captured by Colonel Stuart under Lord Cornwallis in 1791. Colaur district, surrounded on the east, north, and south by the Madras districts of North Arcot, Cuddapah, Anantapore and Salem, has an area of about 2,700 square miles with a population of 498,348. Colaur is the chief town of the district, and contains the tomb of Hyder Ally's father. The Ooregum quartz reefs are worked for gold. Nundidroog fort was captured by Lord Cornwallis in 1791. Chicbullapore was captured by Hyder Ally in 1761. Avany hill, south-east of Colaur, is said to have been the residence at one time of the poet Valmiky, author of the Ramayana. Toomcoor district, bounded on the north by Bellary and Anantapore, has an area of about 8,000 square miles and a population of 636,674. Toomcoor is the chief town. Chitaldroog has a stone fort which was held by the old poligars till 1762 when it was seized by Hyder. Koongal is a horse-breeding centre for the Mysore Sillahdars. Goobby possesses an areca-nut trade with North Arcot. Mysore district, bounded on the east by Coimbatore and on the south by the Malabar and Neilgherry districts, has an area of about 4,128 square miles and a population of 1,194,087. The town of Mysore, nine miles from Seringapatam, had been the seat of the native dynasty, but was neglected under the Mahomedan sovereigns. Since their downfall both the fort and palace have been rebuilt, and the Maharajah having made it his capital a new and increasing city has been formed around them. Mysore is a terminus of the State Railway. The Residency in the English quarter has a portico built by Colonel Wilks and a great room built by Malcolm, now the Sessions Court. The Diwan's official residence was built and occupied by the Duke of Wellington. Seringapatam was long the bulwark of Mysore, and the centre of its power. It is situated at the upper end of an island formed by the Cauvery, here a large and rapid river, and is properly called Shreerangapatnam, or the city of Shreeranga, an appellation of Vishnoo. Tippoo transferred there the seat of government from Bangalore, the favourite residence of Hyder. General Harris attacked the island on the 4th May 1799, since which it was British property leased to Mysore down to 1881, when it was restored to the native government. The spot where Tippoo fell is on the north face. Hirode or French Rocks was till lately a cantonment; here the French in Hyder's and Tippoo's service were stationed. Mulvully contains a ruined fort and garden of Tippoo; near it is the battle-field where he encountered General Harris during the march on Seringapatam. Hoonsoor is the head-quarters of a cattle-breeding establishment. Cadoor district, the reputed scene of some of the Ramayana legends, includes much of the former Hassan district, and lies to the west of the Madras collectorate of South Canara. It has an area of about 4,000 square miles with a population 550,215 and is the principal coffee district of Mysore. The chief towns are Chicmagalore and Hassan. Sathully is a village of caste Christians, the result of the labours of the Abbé Dubois. Tarikeray is a town, the chief of which rebelled in 1830–2. Shimoga district has an area of about 3,900 square miles with a population of 582,566. Shimoga is the chief town of the district. The prevailing language of the province is Canarese; but Tamul, Teloogoo, Hindostany and Mahratta also are spoken. The inhabitants are chiefly Hindoos and Mahomedans, the former consisting of Brahmins, Veisyas, Shoodras, and Mahrattas. State lands are held under the ryotwarry tenure, either on kandayam, i.e., a fixed money assessment, or on batye. The latter term

signifies the temporary occupation of Government land by a ryot who does not pay a money assessment, but shares the produce with the Government. By far the larger portion of the land in the province is held on kandayam. Under the batye system the land is held direct from Government, but the share of Government is paid in grain. The proportion claimed by Government is one-half, but it is probable that in reality only one-third is received, the remaining two-thirds being shared between the ryots and the village servants. The batye tenure will cease with the completion of the survey and settlement in each talook. Inam or rent-free tenures are numerous. Grants of land for coffee cultivation are made from the Government jungles, chiefly in the Western Ghauts forming the Mulnaud.

16. The late Rajah of Mysore died in 1868, having in the previous year obtained permission from the British Government to adopt with a view to the succession. He adopted the present Maharajah, Chama Rajendra Wodeyar, then in his fifth year. Mysore was made over to the present Maharajah on his coming of age on the 25th March 1881. The laws and the rules for the transaction of public business which were in force at the time of the transfer of the governing power are to remain in force until altered by competent authority; and any material alteration must be made by regular and formal process, with the concurrence of the Government of India. All assessments of land revenue and all proprietary rights and tenures acknowledged by the state will be upheld by the Mysore Government according to their terms; no demand on account of taxes and no appropriation of public money will be made, except under the regularly constituted authorities previously determined, and the Maharajah's private income will be kept permanently separate from the revenues of the state. The Maharajah is aided by a council, who deal with all the more important administrative measures, with propositions involving reference to the Government of India, and with the nomination to the more responsible offices. The Chief Judge of the High Court is also the chief legislative adviser and councillor of the Maharajah. The Maharajah is entitled to a salute of 21 guns. Mysore pays a yearly subsidy to the British Government of Rupees 24,50,000, to be raised to 35 lakhs in 1886, for the maintenance of British forces used in the defence of its territory. The local force consists of 1,200 horsemen called Sillahdars divided into three regiments, and three regiments of foot called Barr numbering 1,900 men. The Sillahdars are employed at outposts for internal security, and aid the police in the pursuit of criminals. The Barr are the remains of Hyder Ally's army, now exclusively employed in guarding treasuries and jails and in escorting treasure. The total cost of the Sillahdar and Barr forces is about 17½ lakhs annually.

17. The Resident in Mysore is the accredited representative of the British Government at the court of Mysore, and the channel of communication between the Mysore Government and the Government of India. He is also the administrative head of the assigned tract forming the civil and military station of Bangalore. In addition to this he is Chief Commissioner of Coorg.

18. Mysore is intimately connected with Madras, and the points of common interest have for the most part been already indicated in the general sketch of the country given above. The existing strength of the British force in Mysore, all being Madras troops, is as follows:—1 battery, Royal Horse Artillery; 2 batteries, Royal Artillery; 1 regiment, European Cavalry; 1 regiment, European Infantry; 1 company, Royal Engineers; Headquarters, Sappers and Miners; 1 regiment, Native Cavalry; 3 regiments, Native Infantry. The only station now occupied is Bangalore.

19. There is not much trade from Mysore, but what there is passes almost exclusively through this Presidency. Rice is exported to Canara for the consumption of the inhabitants of that province, whose own is carried off for the Arabian market. The betel-nut of Nugger is exported to the Carnatic and the sandalwood, which is a Government monopoly, to Bombay. A good deal of areca-nut, grown in the Bombay Presidency, passes through Mysore, where it pays duty, to Wallajahpett and Arcot in Madras. Coffee is sent to the English market through the ports on the Western Coast, and also through Madras. Piece-goods and silk cloths are exported to a considerable extent; also the kernels of dried cocoanuts.

20. COORG.—This province [4] lies between N. latitude 11° 55′ and 12° 51′ and between E. longitude 75° 25′ and 76° 14′. It is bounded on the north and east by Mysore, on the west by South Canara, and on the south by Wynaud and Malabar. The area of the province is 1,583 square miles and the population 178,302. The revenue is about Rupees 7,54,172. The most valuable products of Coorg are coffee and the spiced pods called cardamoms. Coffee was introduced in 1854, and is now one of the principal objects of cultivation. There are about 74,000 acres of coffee, half of which is held by European planters. The principal river in Coorg is the Cauvery, which has its source in the Western Ghauts in the west of Coorg. After passing out of the country to the east, it flows through the south-east of Mysore into Coimbatore and Tanjore after which it reaches the Bay of Bengal. Two military trunk roads cross Coorg from Hoonsoor in Mysore to the Malabar Coast. One passes by Periyaputna, Fraserpett, and Mercara to Mangalore by the Sumpajey ghaut; the other by Anechowcoor, and south of Veerarajendrapett, to Cannanore by the Periyambaudy ghaut. When the lines of road now under construction are finished, the two trunk roads will diverge at Siddapoor in the east of Coorg, instead of at Hoonsoor in the Mysore country. The principal towns are; Mercara capital, formerly garrisoned by a regiment of Madras native infantry; Veerarajendrapett, founded by Veeraraja, the hero of Coorg independence, and Fraserpett named after Lieutenant-General Fraser, who was the first Commissioner after the conquest of Coorg. Mercara is 3,800 feet above the sea, and 315 miles west of Madras. It was captured by the British in 1834. The languages spoken in Coorg are Coorg, Canarese, Tooloo, Malayalam, Tamil, Teloogoo, and Hindostany. The native tribe of Coorgs number about 26,558, and the Amma Coorgs (the priestly class) about 475. The Coorgs, who are Dravidians, are considered the finest native race in India, and for their loyalty were specially exempted from the Disarming Act in 1857. The following are the tenures peculiar to Coorg, besides the rent-free temple lands:—(1) Jenm lands held in inalienable tenure by the Coorgs at the rate of Rupees 5 per 100 batties or about 3 acres of wet land upon the condition of military and police service; (2) Sagoo the ordinary cultivating tenure at a fixed rate of Rupees 10 per 100 batties, the holders of which are not bound to render any feudal or any other description of service to the state; (3) Oombaly lands for service performed by certain ryots in the rajah's times, which are lightly assessed at from 1 to 3 rupees per 100 batties. Certain lands which are taxed at the jenm rates come under the head of jody. Jody grants were made for a special purpose or for a particular kind of service, while jenm ryots were bound to

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[4] SKETCH HISTORY OF PAST POLITICAL RELATIONS WITH COORG.—*Veeraraja.*—Coorg is inhabited by a hardy warlike race. Hyder Ally long endeavoured in vain to subdue the country; but, by taking advantage of a dispute between two brothers, he at last effected his purpose, destroyed the family of the elder brother, and made the younger, Veeraraja, a prisoner. Veeraraja escaped in 1788. He was joined by his clansmen in great numbers and soon cleared his country of the invaders. Previous to the war with Tippoo Sultan in 1790, Veeraraja applied to the British Government for assistance, which could not at the time be granted. But as soon as the war broke out he offered his services and sent a large supply of bullocks for the use of the British army. An engagement was made with him by which he agreed to co-operate with the British army against Tippoo, the independence of his country was guaranteed, and it was stipulated that in any peace made with Tippoo the interests of the Rajah would be faithfully consulted. (2) *Tribute from Coorg.*—Coorg was part of the territory which Tippoo was required to resign by the treaty of 1792. This demand was unexpected, and Tippoo complained of it as a violation of the preliminary agreement which required that the territories to be ceded should lie adjacent to the possessions of the allies. It was only when preparations were made to recommence hostilities that Tippoo Sultan yielded. It was arranged that the tribute of Rupees 24,000, which Tippoo had exacted from Coorg, should be transferred to the British Government in consideration of its friendship and protection. This arrangement was most distasteful to the Rajah, who denied that he had ever paid tribute to Mysore. (3) *Annexation of Coorg.*—Veeraraja again rendered valuable service in the second war with Tippoo Sultan, in consideration of which his annual tribute was remitted and he was required only to send an elephant every year, as an acknowledgment of feudal subordination. Towards the end of his rule his character underwent great change. He became suspicious and cruel, and was subject to temporary fits of insanity. He died in June 1809; at his request Devammajee was acknowledged as Ranee of Coorg, but after a few months she was deposed by Lingaraja, the surviving brother of Veeraraja. He died in 1820, after a rule remarkable for nothing but savage cruelty, and was succeeded by Veerarajendra Wodeyar, the last of the Coorg rajahs. The cruelties and murders perpetrated by this man were so revolting that in 1833 he was warned and directed to report all capital punishments to the Madras Government. Many of his nearest relatives were put to death by his own hand. His sister and her husband, whom he had threatened with death, fled from the country and took refuge with the Resident at Mysore. A British officer was sent to bring about a better state of things by negotiation. The mission failed. A native agent, who was sent to prepare the way for another mission, was detained a prisoner. At the same time the Rajah addressed letters of the most insulting kind to the British Government. It was therefore resolved to treat him as a public enemy. A proclamation was issued in 1834, setting forth the objects of the war and declaring Veerarajendra Wodeyar to be no longer Rajah of Coorg. After a short campaign the Rajah surrendered. A considerable number of the inhabitants having expressed a desire to become subjects of the British Government, the country was annexed, and the people were assured that they would not again be subjected to native rule; that their civil rights and religious usages would be respected; and that the greatest desire would be shown by the British Government to augment their security, comfort, and happiness. (4) *Death of the Rajah.*—The Rajah and his family were pensioned and removed to Benares. He afterwards went to England, where he died in 1859.

perform duties of a general nature. Coffee lands are now assessed from Rupee 1 to 2 per acre.

21. The province is administered by a Chief Commissioner, who is also the Resident in Mysore. He resides at Bangalore and is directly subordinate to the Government of India. The chief resident British officer is styled Commissioner of Coorg, and exercises civil, criminal, and revenue powers within its limits in subordination to the Chief Commissioner. Under him are two Assistant Commissioners, one a European and the other a Coorg. The province is divided into six talooks, each under a Sub-Magistrate called a Soobahdar, and the talooks are sub-divided into 24 nauds or hoblies, each naud being under a Parputtyagar vested with subordinate magisterial powers. Coorg is a scheduled district under India Act XIV of 1874.

22. As in the case of Mysore, the points of common interest with Madras have almost been exhausted in giving a general description of the province. The natural connection between Coorg and Madras is intimate, the inhabitants being of the same race.

23. The principal article of export from Coorg into Madras territory is coffee, transported either to the western ports for shipment to Europe, or for the same purpose to Madras viâ Bangalore. Rice, cardamoms, timber and oranges are also exported to the neighbouring districts.

24. BRITISH BURMAH.—British Burmah [5] lies along the eastern coast of the Bay of Bengal between 92° and 90′ E. long., and 20° 50′ and 9° 55′ N. lat. It has

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[5] SKETCH HISTORY OF PAST POLITICAL RELATIONS WITH BURMAH.—*Trade with Burmese territory.*—It is believed that no real treaty existed between the British Government in India and the King of Burmah, until that of Yandaboo, which was concluded on the 24th February 1826. At the period when the British in India represented a trading body and not a sovereign power, deputations were occasionally sent from the Governors of the Settlements both in Bengal and Madras to establish trade with the Burmese territory. Factories were erected at Syrian, near Rangoon, and at Negrais. (2) *Grants of land to the East India Company.*—In 1757 a treaty is said to have been made with the Burmese Government. The Chief of the English factory at Negrais deputed Ensign Lester to the capital of Burmah. He had an interview with King Alom Phra, the founder of the existing dynasty, by whom the island of Negrais and some ground near the town of Bassein, were granted to the East India Company. It is not known that any copy of this so-called treaty is now in existence. Afterwards the English at Negrais were treacherously killed; but a second grant of land, for the erection of a factory at Bassein, was subsequently made by the Burmese Government. (3) *British Agent at Rangoon.*—The first direct political intercourse between the British and Burmese Governments appears to have been when Captain Michael Symes was deputed by the Governor-General as envoy to the Court of Ava in 1795, for the purpose of strengthening the political and commercial relations of the British Government with the Court of Ava, and of preventing the French from gaining a footing in Burmah. Captain Symes obtained a Royal Order whereby permission was given for a British Agent or Superintendent to reside at Rangoon, to protect the interests of British subjects, and arrangements were made for the protection of trade. (4) *Appointment of Captain Cox.*—In virtue of that arrangement Captain Cox was appointed Superintendent, and he landed at Rangoon in October 1796. He proceeded to the capital to deliver certain presents to the King, which had been formerly promised by Captain Symes. He was, however, treated with much contumely. Eventually he returned to Rangoon and left for Bengal at the latter end of 1797. (5) *Embassy to Burmah.*—About this time there began some disputes on the border between Arakan and Chittagong. The Burmese had conquered Arakan in 1782. The Arakanese rebelled, and about the year 1797 numbers of them began to take refuge in the Chittagong district. The Burmese Governor of Arakan wrote during 1798, and demanded in an insolent manner that the fugitives should be given up. The Governor-General, Marquis Wellesley, then determined to send another embassy to the Court of Ava. Captain, then Colonel, Symes was again selected. He proceeded to the capital. There he obtained merely a verbal assurance that no further demand would be made for the Arakanese fugitives. The King would make no apology for the style in which the demand had been made, nor enter into any new engagement. Colonel Symes returned to Rangoon, where he was not treated with ordinary civility by the Governor, and left for Bengal in January 1803. (6) *Deputation of Captain Canning to Rangoon.*—After this Captain Canning was deputed to Rangoon, apparently as the representative of Colonel Symes, to endeavour to obtain some apology from the Burmese Court for their past insolence, and to ascertain if the French were establishing any interest in Burmah. Captain Canning, in consequence of the overbearing conduct of the local authorities at Rangoon, was, before long, obliged to leave the country. (7) *Captain Canning's deputation to Rangoon as Governor-General's Agent.*—In the year 1809 Captain Canning was again deputed to Rangoon as Agent to the Governor-General. The object appears to have been to enter into explanations regarding the blockade of the Isle of France, which interfered with the trade of Rangoon to that island. Captain Canning proceeded to the capital, and was well received. Having accomplished the object in view, Captain Canning returned to Bengal. (8) *Disputes on the Arakan-Chittagong frontier.*—In the year 1811 the Arakanese having once more rebelled, and many of them having fled to the district of Chittagong, disputes again occurred on that frontier. An Arakanese chief collected a body of his countrymen in the hilly parts of the Chittagong district, and marched into Arakan to attack the Burmese. Captain Canning was deputed to the Court of Ava to explain that this movement was neither instigated nor supported by the British Government, and also to complain of outrages to British subjects perpetrated with the sanction of the Burmese authorities in Arakan. In the meantime the Burmese troops in Arakan had followed the Arakanese rebels into British territory, and orders were sent down from the Burmese Court to the Governor of Rangoon to make Captain Canning prisoner, and retain him as a hostage for the delivery of the Arakanese rebels. Captain Canning was fortunately safe from violence by being on board a ship-of-war, with an armed ship in company. He left Rangoon in August 1811. (9) *Burmese interference in Assam and invasion of Cachar.*—Subsequently to that year the Burmese officials in Arakan more than once made demands for the surrender of Arakanese refugees, and even made pretensions to the sovereignty of Bengal, as far as the city of Moorshedabad as territory pertaining to the kingdom of Arakan. In 1819 they interfered in Assam, and in 1824 they invaded Cachar. (10) *Occupation of Shahpooree by a Burmese force.*—In the meantime, on the Arakan side, the Burmese had been encroaching; they had arrested the elephant-hunters employed by the British Government, and finally they claimed the island of Shahpooree, situated at the mouth of the river Naaf. On the night of 24th September 1823 a strong Burman force occupied the island, killing a few sepoys of the provincial battalion stationed there. The Governor of Arakan also intimated that the island was theirs, and they intended to keep it. The Governor-General addressed the King of Ava, demanding the dismissal of the Governor of Arakan. No reply was received for some months. The answer which eventually came was probably written in the name of the Hlwotdau or Royal Council, and merely stated that the governors on the frontier

a seaboard 900 miles long, with an area of 87,220 square miles and a population of 3,736,771. It is bounded on the north by Upper Burmah and Eastern Bengal, on the east by Karenny and the Siamese kingdom, and on the south and west by the sea. The revenue of the province, which is derived chiefly from land,

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had full powers to act. (11) *First war with Burmah.*—Thus on every point where the British territory, or the territories of those under British protection, touched the Burmese dominions, aggression and insult had been committed by Burmese officials, while applications for redress were treated by the Burmese Government either with silent contempt, or with additional insult. War was therefore declared by the Governor-General against Burmah on 5th March 1824. On the 11th May of that year a force under Sir Archibald Campbell took possession of Rangoon, and after two campaigns peace was concluded at Yandaboo, about 40 miles distant from the capital, on the 24th February 1826. (12) *Cession of Arakan and Tennasserim Provinces to the British.*—By that treaty Arakan and the Tennasserim Provinces were ceded to the British; each Government might place a Resident at the Court of the other; and a commercial treaty was afterwards to be negotiated. (13) *Commercial treaty with Burmah.*—To effect the commercial treaty, Mr. John Crawford proceeded to Amarapoora. On the 23rd November 1826 he signed a treaty of four articles. (14) *Appointment of Colonel Burney as Resident.*—Under the treaty of Yandaboo Colonel H. Burney was appointed Resident at the Court of Ava. He arrived there in April 1830. He remained at the Burmese Court until June 1837, when he proceeded to Rangoon, and eventually returned to Bengal. The immediate cause of his leaving was that a revolution occurred, in which the reigning King was deposed, and his brother, the Prince of Tharawaddy, ascended the throne. In 1834 an agreement was made for the restoration to Burmah of the Kubo valley, which had been annexed to Mannipore. (15) *Deputation of Colonel Benson.*—In 1838 Colonel Benson was deputed to the Court of Burmah to re-establish the friendly relations which had been interrupted. He reached the capital in October 1838. In consequence of the insulting conduct of the Burmese Court, the Resident left Amarapoora in 1839. From that time there was no direct official communication between the Governor-General of India and the King of Burmah for several years. (16) *Second war with Burmah.*—In July 1851 Lieutenant-Colonel Bogle, Commissioner of the Tennasserim Provinces, forwarded to the Supreme Government a petition from the master of a British ship, complaining of gross oppression which he had suffered from the Governor of Rangoon. In November of that year Commodore Lambert was deputed to Rangoon with a letter addressed to the king, in order to obtain redress. But all reparation for the injuries to British subjects was refused. The Governor-General therefore sent a force to Rangoon, under the command of Major-General Godwin. Rangoon fell to the combined naval and military force on the 14th April 1852. From that time, until 27th January 1853, no communication from the Burmese Government reached the British commanders. When the combined forces had reached Meeaday, about 250 miles by the river above Rangoon, a Burmese officer arrived with a letter, announcing that a new king reigned in Amarapoora, and expressing his desire for peace. Early in April the Burmese Woongyee duly empowered reached Prome, but as he refused to sign a treaty acknowledging the province of Pegu to be British territory, the negotiations were broken off and the British frontier was declared to be a line drawn due east from the summit of the Arakan mountains in the latitude of, and intersecting a point, six English miles north from the flagstaff in the fort of Meeaday, thence continued in the same direction until it reached the Sitoung river and the territory of the Red Karen Chief. On both sides, however, it was understood that hostilities would cease. (17) *Envoys from the Burmese Government.*—In the latter end of the year 1854 the Burmese Government deputed two envoys of high rank and some subordinate officials to convey a complimentary letter and presents from the king to the Marquis of Dalhousie. They were received in Calcutta with distinction, and returned to Burmah at the beginning of the year 1855. The Government of India sent a return embassy to the Burmese Court in the rainy season of 1855. The envoy, Major Phayre, was received by the king and court in the most friendly manner. The king, however, manifested an insuperable aversion to signing any treaty giving up the province of Pegu, and this has never been done. (18) *Treaty of* 1862.—In May 1862 the Chief Commissioner of British Burmah was instructed to visit Ava for the purpose of coming to an understanding with the Court of Burmah on several questions, more especially relating to matters of commercial importance, which were then under discussion. On 10th November 1862 he concluded a treaty for the protection of trade and the establishment of free intercourse with Burmah. An Agent to the Chief Commissioner was appointed to reside at Mandalay to prevent misunderstandings arising as to the provisions of the treaty. (19) *Treaty of* 1867.—Towards the close of 1866 the Chief Commissioner of British Burmah proceeded to Mandalay to effect an arrangement with the Burmese Government by which the several objects contemplated in the treaty of 1862, more especially the abolition of all intermediate customs duties on goods passing up and down the Irawaddy, might be more effectually carried out. The duties levied on the British side of the border had been abolished in June 1863, but the Burmese were allowed to levy duties on their side for a period of four years. Owing to the king's unwillingness to surrender his monopolies, from which he derived much of his revenue, the Chief Commissioner was unable to arrange any satisfactory agreement and returned to Rangoon without concluding the treaty. Shortly afterwards, however, in consequence of the resolution of Government to re-impose the export duties which had formerly been levied on the Burmese frontier, the king of his own accord abolished his monopolies, with the exception of those of earth-oil, timber, and precious stones, reduced his frontier duties, both export and import, to 5 per cent. 'ad valorem', and made overtures to renew the negotiations which had been broken off. Accordingly a new treaty was concluded on 25th October 1867. The most important of the new provisions of this treaty were those which conferred certain powers of civil jurisdiction on the Political Agent at Mandalay. Under these provisions there were established in August 1869 a Court of the Political Agent for the disposal of suits between registered British subjects, and a mixed Court, consisting of the Political Agent and a Burmese Judge, for the hearing of suits between British and Burmese subjects. The mixed Court has no criminal jurisdiction: stamp duty is not levied from British subjects who sue in it: there is no code of rules for its guidance, cases being decided by equity, but regulations have been framed for the subsistence of debtors imprisoned by order of the Court. The Burmese law does not provide for the attachment of a debtor's property. (20) *Political Agent at Bhamo.*—Under the terms of the treaty of 1867, a Political Agent has been stationed at Bhamo. (21) *Edict by the King of Burmah.*—A royal edict was promulgated by the king in May 1871, enjoining an unrestricted free trade and abolishing duties on the sale and purchase of produce within his dominions. (22) *Commercial treaty between Italy and Burmah.*—In 1871 Captain Racchia, of the Italian Navy, visited Mandalay and concluded a commercial treaty between Italy and Burmah which was ratified in December 1872. Satisfactory assurances were received from the Italian Government that no infringement of the orders of the British Government prohibiting the import of arms into Burmah would be permitted. (23) *Commercial treaty between France and Burmah.*—A commercial treaty was also negotiated in 1873 between Burmah and France, and a French embassy visited Mandalay for its ratification. The French envoy negotiated with the Burmese Government several alterations in the text of the treaty already ratified by France, and the new stipulations were embodied in a supplementary treaty, the ratification of the original treaty by the King of Burmah being left conditional on the acceptation of the subsequent instrument by the French Government. The treaty however has not yet been ratified. (24) *Embassy to Her Majesty the Queen.*—In 1872 the king sent an embassy with a friendly letter to Her Majesty the Queen: the mission was considered as purely ceremonial, and the envoys were informed that direct correspondence with Her Majesty's Government without reference to the Government of India would not be permitted. (25) *Expedition under Major Sladen.*—Far to the north-east of Burmah are numerous Shan tribes, many of which are tributary to the Burmese monarch, others to the Chinese. Through their territory and the western portion of the Chinese province of Yunnan flows the river Salween; surveys of the upper course of the river made in 1863 and 1864 showed that it was not navigable. In 1868 an expedition was sent under the command of Major Sladen to explore the old trade routes between South-Western China and Burmah viâ Bhamo, to ascertain the causes of the cessation of the valuable trade formerly carried on by these routes, the possibility of reviving it, and the influence exercised upon it by the Shans, Panthays, and Kakhyens. The expedition arrived safely at Moulmein, then in the hands of the Mahomedan Panthays who had rebelled against the Chinese, and gathered much valuable information as to the physical characteristics of the country and its trade capabilities as compared with those of the direct route to Western China viâ Rangoon. (26) *Expedition under Colonel Browne.*—In 1874 a similar expedition was sent under the command of Colonel Browne, but, owing to

capitation tax, and customs is about Rupees 2,33,40,948, and is greatly in excess of the expenditure. The principal rivers in British Burmah are the Irawaddy, the Hlaing or Rangoon river, the Salween, and the Tennasserim. The Irawaddy flows from its undiscovered sources about 800 miles before reaching British territory, and is navigable by river-steamers as far as Bhamo, 600 miles beyond the frontier. The Rangoon and Irawaddy State Railway, which was opened in May 1877, runs from Rangoon to Prome, a distance of 163 miles. A line designed to go from Rangoon to Toungoo (163 miles) has reached Pegu town, 48 miles. It is about to be opened to Pycentaza, opposite the head-quarters of Shwe-gyeen and will be completed this year (1884). At Donabew the Burmese were defeated by Sir Archibald Campbell in 1825, and by Sir John Cheape in 1853. Bassein district has an area of 7,047 square miles and a population of 389,419. Bassein, the chief town and port, taken in the second Burmese war, is a rice-port having an extensive trade with Madras; Negrais, or Hainggyee island at the mouth of the Bassein river, was one of the earliest English possessions, being occupied by the Madras Government in 1687. British Burmah is the chief seat of Booddhism in the Malayan peninsula. Booddhists form about five-sixths of the whole population, Mahomedans about one-thirtieth, and Hindoos and Christians about one per cent. of the total. Formerly there were the usual caste distinctions, but there is now considerable equality amongst the inhabitants. The other races to be found in Burmah, besides the Burmese and immigrants from India and elsewhere, are the Talaings in Pegu, the Karens of the Irawaddy delta and of the Paunglaung range, and the Taungthoos and Shans in the southern division. Burmese is the language spoken by three-fourths of the people. The hill-tribes have dialects of their own, but they also speak Burmese. There are no zemindars or large landed-proprietors in British Burmah

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unforeseen obstacles, was compelled to return without having effected its purposes and with the loss of one of its members, Mr. Margary, who was murdered in the Chinese town of Manwyne. (27) *Protection of future missions.*—After some discussion the King of Burmah agreed to permit the passage through his dominions of such a number of British troops as might be sufficient for the protection of any future mission that the Government of India might deem it necessary to send. (28) *Karenny tribes.*—On the north-east frontier of Pegu, and bordering on the Salween river, is a tribe who call themselves Kaya, and are known to the Burmese by the name of Karenny or Red Karen. These people first became known to the British Government in the year 1836, when the Commissioner of the Tenasserim Provinces deputed Doctor Richardson to proceed to them and make arrangements for opening trade. The whole race appeared then to be under the dominion of one chief. He was an independent sovereign, but when it was contemplated, on the annexation of Pegu, that the British boundary should run in the parallel six miles north of Meeaday from the Arakan mountains to the river Salween, it was supposed that the Karenny tribes inhabiting the country between the Sitoung and the Salween south of that parallel were subjects of the King of Burmah. As however they were ascertained to be independent, and the British Government had no intention of asserting a right of conquest over them, the demarcation of the boundary was not carried further east of the Sitoung than the Koon-Oung ridge of the Poung-Loung range of mountains. (29) *Eastern and Western Karenny.*—Within the last twenty years the tribes have become separated into two great divisions, inhabiting districts denominated respectively Eastern and Western Karenny. Each of these divisions is more or less subject to two principal chiefs. But the authority of these over the subordinate chiefs is very uncertain. Kyay-pho-gyee, Chief of Western Karenny, and those under him, showed from the first an anxious desire for British protection. In 1855, an Agent on the part of the British Government was placed at his chief town, in order to observe and report events in the neighbouring states, and to use his influence to check the wars and forays carried on to make captives to be sold into slavery. In January 1857 the Deputy Commissioner of Toungoo, Mr. E. O'Riley, proceeded to Karenny, on which occasion he made a contract of friendship with the ancient chieftain. This consisted in the slaughter of a bullock, the flesh of which was eaten at a general feast, and one of the horns kept by each of the contracting persons as a pledge of sincerity. From that period this chief considered himself as being under the protection of the British Government, and though no promise of protection was made to him, yet the known fact of the public acknowledgment of friendship, and the presence of the Agent who remained at his town till 1862, served to keep him from serious attack. (30) *Independence of Western Karenny.*—In 1863 Mr. O'Riley was again deputed to Karenny to arrange differences that had arisen with the chiefs of Eastern Karenny, and to provide for the safe transit of caravans through all parts of that country. He found the chiefs of Western Karenny firm in their attachment to the British Government, and renewed with them the contract of friendship made in 1857. Kyay-pho-gyee died in 1868 and his sons, Koontee and Koonsha, repeated the request, previously made by their father, that the British Government would take possession of and administer Western Karenny. This was declined, but in consequence of applications made in 1869 by the Chief of Eastern Karenny to the Burmese Government for assistance against the Western Karens, the King of Burmah was urged to abstain from interference with the independence of Western Karenny, and positive assurances were given by his prime minister that the wishes of the British Government would be scrupulously respected. Towards the end of 1873, in consequence of reports of a threatened movement of the Burmese against Western Karenny the Burmese Government were reminded of the assurances given in 1869 and 1870; they repudiated these assurances and asserted a claim to exercise sovereignty over Western Karenny. The determination of the British Government not to allow any extension of Burmese authority south of the prolongation of the British boundary line remained unchanged, and as no satisfactory proposal was made by the envoy deputed by the king towards the end of 1874 to discuss the question, Sir Douglas Forsyth was instructed to proceed to Mandalay, and, as a preliminary to further discussion, to require an assurance from the king that the 'status quo' in Western Karenny should be maintained. The king however anticipated all discussion by volunteering to guarantee the independence of Western Karenny, and an agreement to this effect was executed on the 21st June 1875. The Burmese Government were at the same time informed that the boundary between Western Karenny and Burmese territory would be demarcated by a British officer, who might, should the king desire it, be accompanied by a Burmese official. (31) *Insurrection at Mandalay.*—In August 1866 an insurrection, headed by one of the king's sons, broke out at Mandalay; the king's brother and declared successor was killed, and the king himself was for some time in great danger. The prince took refuge in British territory and was allowed to reside in Rangoon; soon afterwards he was found to be intriguing against the king and was placed under restraint. In February 1867 he effected his escape, took refuge with the Chief of Western Karenny and endeavoured to raise a rebellion among the Shans to the north-east of Toungoo who are tributary to Burmah. The attempt was unsuccessful, and in August 1868 he was arrested in Rangoon and sent as a State prisoner to Choonar.

and no Government or wards' estates. The Government is the sole proprietor of the land, and receives from cultivators a rent varying from 8 annas to 5 rupees an acre. The average assessment is about 1 rupee 10 annas. The basis of the land revenue settlement has been an assessment of 20 per cent. of the gross produce, payable to Government in money at the rates of the price of grain in the circle within which the land is situated. Special features of the administration are the capitation tax and fishery rents. The former is levied on all males between the ages of eighteen and sixty, except religious and other teachers, Government servants, persons unable to earn their own living, and immigrants for the first five years of their residence. The rate is 5 rupees a head for married men, and half that amount for unmarried men.

25. The three divisions comprising the province of British Burmah, viz., Arakan, Pegu and Tennasserim, from the time of their coming under British rule up to January 1862, were governed separately by their respective Commissioners, under the control of the Government of India in the case of Pegu and Tennasserim, and under that of the Lieutenant-Governor of Bengal in the case of Arakan. In January 1862 these three divisions were amalgamated and formed into a Chief Commissionership in direct subordination to the Government of India. The Chief Commissioner exercises the powers of a local Government, and has complete control over all departments and branches of the administration, the courts being controlled by a Chief Judge named the Judicial Commissioner. The Chief Commissioner is assisted by a Secretary, a Settlement Secretary, a Junior Secretary and an Assistant to the Secretary; other departmental heads are 4 Collectors of Sea Customs, 4 Port officers, a Director of Public Instruction, 2 Inspectors of Schools, an Inspector-General of Police, an Inspector-General of Jails, and 2 Conservators of Forests. For administrative purposes the province is divided into three divisions, each controlled by a Commissioner subordinate to the Chief; below the Commissioners are 18 Deputy Commissioners, each holding executive and judicial charge of a district, under whom are numerous other officials, executive and judicial, in charge of the one hundred and fourteen subdivisions into which the several districts are divided.

26. Rangoon town, which has been the capital of the province since the second war in 1852, was founded originally by Teloogoo settlers from the north of this Presidency. There is a military cantonment in the north of the town, enclosing the fortified pagoda called Shwe Dagon or 'golden log.' All the troops in Burmah are Madras troops. The last of the Moghul dynasty of Delhi, the titular Emperor Bahaudur Shah, died here in captivity after the mutiny of 1857, and some of his family are still retained as State prisoners. Rangoon is on the Pegu river. From the country bordering this river, Madras obtains its best ponies. Syriam, opposite Rangoon, has been the site of Portuguese, Dutch, and English factories successively. Negrais or Hainggyee Island at the mouth of Bassein river was one of the earliest English possessions and was occupied from Madras in 1687. Thayet-myo is a station for troops near the northern frontier. Amherst on the coast is a sanitarium. Toungoo is another military station near the north-east frontier among the Kareng population. The Burmese stations of the British Burmah division garrisoned by the Madras Army are:—Rangoon (head-quarters), Moulmein, Shwe-gyeen; Thayet-myo, and Toungoo. The troops composing the British Burmah division consist of 4 batteries of Artillery, 2 regiments of British Infantry, 4 regiments of Native Infantry, and 1 company of Sappers and Miners; but some of these go to the Andamans and Nicobars. Particulars regarding emigration from this Presidency to Burmah are stated in the article on Emigration in Chapter VI.

27. The principal articles imported into British Burmah from the Madras Presidency are cotton piece-goods, oils, tobacco and ghee. The principal articles exported from Burmah to this Presidency are timber, paddy and rice. In 1882-83 the value of the merchandise imported was Rupees 30,28,790, and of treasure Rupees 16,000. The value of the exports under merchandise amounted to Rupees 13,79,299. The hides and skins imported from Madras amounted in 1882-83 to 70,553 in number, valued at Rupees 41,208. The coffee imported was 672 lb., valued at Rupees 330, and sugar amounted to 12,437 cwt., valued at Rupees 1,81,464. Seeds amounted to 15,359 cwt., valued at Rupees 73,065, and spices to 1,414,081 lb.,

valued at Rupees 83,843. The imports under rice amounted to 3,279 cwt., valued at Rupees 10,209, and under other grains to 301 cwt., valued at Rupees 655. Of the cotton piece-goods imported, there were 931,578 yards, valued at Rupees 3,42,264, and 76,029 pieces valued at Rupees 39,343. Of the other articles imported, oils amounted to 505,271 gallons, valued at Rupees 471,217; cocoanuts to 9 cwt., valued at Rupees 72; coir yarn and rope to 6,874 cwt., valued at Rupees 36,334; timber and wood, valued at Rupees 277; tobacco to 5,156,122 lb., valued at Rupees 9,06,571; and living animals to 469 head, valued at Rupees 1,424. Of the articles exported in the same year from British Burmah to the Madras Presidency, cotton piece-goods amounted to 5,150 yards, valued at Rupees 1,010; cotton twist to 4,240 lb., valued at Rupees 2,300; paddy to 75,598 cwt., valued at Rupees 1,06,777; rice to 54,177 cwt., valued at Rupees 1,42,254; other grains to 38,831 cwt., valued at Rupees 86,533; and metals to 2,002 cwt., valued at Rupees 14,383. The apparel exported from Burmah to Madras was valued at Rupees 2,354 and the timber at Rupees 6,96,584.

28. THE ANDAMANS AND NICOBARS.—These islands,[6] which form a prolonged chain stretching upwards of 200 miles in the direction of north and south, lie between Cape Negrais in British Burmah and Acheen Head in Sumatra in 10° 30′ and 13° 45′ N. latitude, and 92° and 94° E. longitude. They consist of the great and little Andaman groups. The great Andaman group consists of four islands, the North, Middle, and South Andaman and Rutland Island, which are separated from each other by narrow straits. Duncan Passage separates the great Andaman group from little Andaman. Surrounding the Andaman group are a number of smaller islands, the principal of which is Interview Island to the west of the great Andaman. The area of these islands is 2,700 square miles. To the north of the Andamans are the Preparis and Coco Isles, and to the south-east are the Nicobars consisting of nine islands lying between 6° 41′ and 9° 21′ N. latitude and 92° and 94° E. longitude. The Nicobars have an area of about 736 square miles with a population of 6,000. The population of these islands consists of the aborigines and the convicts, with the establishment required for the safe custody of the latter. The exact number of the aborigines, who are Oriental negroes of short stature and low type, much akin to the aborigines of Southern India, and are perhaps the least civilized race in the world, is not known. It ranges probably from 2,000 to 10,000. The mutineer element among the convicts has now nearly died out, and the colony is recruited from the jails of this Presidency and the other Indian provinces.

29. The Chief Commissioner and Superintendent of the Andamans, who is also in charge of the Nicobars, is directly under the Government of India. The Nicobars are administered by an extra Assistant Commissioner, who resides at Nancowry.

30. There are no political transactions with Madras, other than the receipt of the convicts deported there.

31. The principal articles exported from the Nicobar Islands are cocoanuts, edible birds' nests, tortoise shell, ambergris, and trepang or the sea-slug. The number of English and Malay vessels that come to the Nicobars for cocoanuts is every year increasing, as cocoanuts are five or six times cheaper here than on the coast of Bengal or in the Straits of Malacca. The Nicobarians take in barter cloths, handkerchiefs, cutlasses, Burmese daos, spoons, spirits, tobacco, red woollen caps, and cast-off clothing.

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[6] SKETCH HISTORY OF PAST POLITICAL RELATIONS WITH THE ANDAMANS AND NICOBARS.—The first European settlement in the Nicobars was formed by the Danes in 1756, but was abandoned in 1768. Other unsuccessful attempts at colonization were also made by Americans, Lutherans and Jesuits at about the same period. The islands then became notorious as the resort of pirates, by whom in 1840 the whaler "Pilot" of London was seized. In consequence of this, an English cruiser was sent to the spot and proofs of a long continued course of piracy were discovered. At this period the sovereignty of these islands was claimed by the Danes, but they abandoned the claim in 1858, whereupon the chiefs of Car Nicobar expressed their desire to acknowledge the supremacy of the British Government. No notice was taken of these proceedings at the time, but as the pirates continued their outrages it was thought advisable to bring the islands under the English authority, and they were accordingly annexed in 1869. Meanwhile the Bengal Government attempted in 1789 to establish a convict settlement on the Andamans, but this was abandoned in 1796, chiefly owing to the malaria. In 1858 another settlement was made at Port Blair to which were sent the life-prisoners sentenced for participation in the mutiny, and this has been used as a convict settlement since that time. The most memorable event in the history of these islands is the murder of Lord Mayo in 1872 by a convict.

32. THE STRAITS SETTLEMENTS.—The Straits Settlements [7] lie on the western and southern coast of the Malay peninsula and consist of three detached portions; Singapore Island, Malacca, and Penang, including Province Wellesley and the Dindings. The total area of the Straits Settlements is about 1,500 square miles, and they contain a population of about 470,000. Singapore is an island in the Strait of Malacca, lying off the southern end of the Malay peninsula, and has an area of 256 square miles, or, including the adjacent islets, of 223 square miles. Singapore, the capital and seat of government, is on the south-east coast, in lat. 1° 17′ N., and long. 103° 50′ E., and possesses a fine harbour. It is on the highway of the trade between India, China, Batavia and Australia. The Malacca territory is situated on the west coast of the peninsula between 2° and 2° 30′ north latitude and 102° and 102° 45′ east longitude. It has an area of 660 square miles, with a population of nearly 94,000. Malacca, the chief town, is situated at the entrance of the Malacca river and is one of the oldest European settlements in the East. Penang or Prince of Wales' Island is situated between 5° 15′ and 5° 3′ north latitude and in longitude 100° 15′ east, off the west coast of the Malay peninsula, from which it is separated by a strait about two miles in breadth. It was purchased from the Rajah of Kedah in 1786. It has an area of 107 square miles with a population of about 91,000. George Town is the chief station. The proper name of Penang is Pulo-Penang, or Betel-nut Island; pinang being the Malay name for the areca-nut palm, which produces the nut eaten along with the leaf of the betel all over south-eastern Asia. Province Wellesley is a strip of the coast of the mainland lying opposite to Penang, also bought from the Rajah of Kedah in consequence of the prevalence of piracy on the shore and on the mainland opposite Penang. It has an area of 236 square miles with a population of 72,000. Province Wellesley is a dependency of Penang and has an area of 270 square miles with a population of 98,000. It includes, since the Pangkor treaty, 1874, about 25 square miles of newly-acquired territory south of the Krian and about 200 square miles in the Pangkor islands and territory. The whole settlement of Penang, including these territories, contains a population of over 19,000 inhabitants. The land is held chiefly by sugar-planters and has extensive tin mines which are worked by the Chinese.

33. Besides these three settlements there are three protected states (Perak, Selangor and Sunjee Ujong), the governments of which are administered by British Residents, who are under the direct control of the Governor of the Straits Settlements. They are situated on the western side of the peninsula between Province Wellesley and Malacca. Perak lies between 5° 10′ to 3° 45′ N. and has an area of about 8,000 square miles and a population of 100,000. Selangor, which lies

[7] HISTORY OF POLITICAL RELATIONS WITH THE STRAITS SETTLEMENTS.—The first of these territories obtained by the English was Penang. It was founded on the 17th July 1786. Prince of Wales' Island, as it was officially called, was ceded to Captain Light, acting for the East India Company, by the Rajah of Kedah in 1785, it having been stipulated that the sum of 10,000 dollars for eight years, afterwards modified in 1791 to 6,000 dollars in perpetuity, should be annually paid to the Rajah of Kedah, as long as the British occupy the island. But a few years later the sum was raised to 10,000 dollars, which has since been paid. This was settled when Penang's territory was extended; and in consequence of the prevalence of piracy on the shores of the mainland, opposite Penang, a strip of the coast of the main, now called Province Wellesley, was purchased for 2,000 dollars plus this addition to the annuity paid to Kedah. The strip extended from the Muda river to the Krian river, a distance of 35 miles. Since the Pangkor Treaty of 1874 it has been enlarged as stated above; and since that treaty, also, the settlement has comprised the outlying dependency of Pangkor and the Dindings, under a superintendent, which gives an addition of territory almost equalling the province in extent. In 1796 the climate of the Andamans having been found unhealthy, the penal settlement there was abandoned (until after the mutiny) and its 700 convicts were transferred to Penang. In 1805 Penang was made a separate presidency under the East India Company, of equal rank with Madras and Bombay. In 1826 Singapore and Malacca were incorporated with it under one government, Penang still remaining the seat of government. In 1837 the seat of government was transferred to Singapore. Malacca is one of the oldest European possessions in the East, having been taken from its Malay Sultan, Mahmood Shah, by the Portuguese under Albuquerque in 1511, to punish an attack upon his Lieutenant, Sequeira, in 1509. It was held by them till 1641, when the Dutch, after several fruitless attempts, succeeded, with the help of the Achinese, in driving them out. The place remained under Dutch Government till 25th August 1795, when it was taken military possession of by the English. It was governed by them on the Dutch system of monopoly till 1813; and it was still held by the English, after that system was abolished, till 1818; at which date it was restored to the Dutch, in accordance with the Treaty of Vienna. It finally came into our hands under the treaty with Holland of March 1824, in exchange for our Company's Settlement at Bencoolen and other places on the west coast of Sumatra. By that treaty it was also arranged that the Dutch should not again meddle with affairs, or have any settlement on the Malay Peninsula, the British Government agreeing, at the same time, to leave Sumatra to the Dutch, saving only Achin in the north, of which the independence was protected until the treaty of 1872. Singapore was occupied by Sir Stamford Raffles, acting under the authority of Lord Hastings, on the 6th February 1819, by virtue of a treaty with the Malayan princes of Johor. It was at first subordinate to Bencoolen in Sumatra, of which Raffles was then Lieutenant-Governor; but in 1823 it was placed under the Government of Bengal. It was afterwards, in 1826 as above stated, incorporated with Penang and Malacca, and finally became the seat of government in 1837.

between 3° 45′ to 2° 40′ N., has an area of about 5,000 square miles and a population of about 50,000. Sunjee Ujong is a much smaller state, lying to the north-east of the Malacca territory, and has an area of about 500 square miles and a population of 14,000.

34. The chief authority in these settlements is vested in a Governor appointed by the Queen, and is assisted by an executive and a legislative council. The several settlements are under Resident Councillors, who are also members of the executive and legislative councils.

35. Particulars regarding emigration from this Presidency to the Straits Settlements are stated in the article on Emigration in Chapter VI.

36. The principal articles imported into this Presidency from the Straits Settlements are betel-nuts, metals, and white cotton piece-goods. The exports from Madras to these places consist chiefly of living animals, cotton piece-goods, dressed skins, seeds, tobacco leaf, and ghee. In 1882-83 the value of merchandise imported was Rupees 9,97,140 and of treasure Rupees 787. The value of the exports under merchandise amounted to Rupees 18,83,072 and under treasure to Rupees 1,501. The metals imported from the Straits, which consist chiefly of tin, amounted in 1882-83 to 3,820 cwts., valued at Rupees 1,77,008. The apparel imported was Rupees 6,550 in value, and of cotton piece-goods there were 90,950 yards valued at Rupees 20,790 and 80 pieces in number whose value was Rupees 10. The living animals exported from Madras to the Straits in 1883-84 amounted to 14,831 head of cattle valued at nearly 5 lakhs; of the cotton piece-goods exported in 1882-83 there were 1,256,137 yards valued at Rupees 3,97,038, and 16,825 pieces valued at Rupees 7,734. Of the other articles exported in the same year hides and skins amounted to 300,717 in number valued at Rupees 1,12,221; seeds to 5,336 cwt. valued at Rupees 25,836; tobacco to 409,913 lb. valued at Rupees 43,021; spices to 28,346 lb. valued at Rupees 2,349; and grains other than rice to 287 cwt. valued at Rupees 1,171. The articles re-exported to the Straits from Madras are chiefly cotton piece-goods, which are dyed here and then exported.

37. Ceylon.—Ceylon, [8] an extensive and beautiful island, the Taprobane of the Greeks and Romans, the Serendib of the "Arabian Nights Entertainments,"

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[8] Sketch History of Political Relations with Ceylon.—*Cession of Dutch settlements to the British Government.*—The first diplomatic intercourse between the British Government in India and the native powers in Ceylon took place in 1664, when an embassy was sent to obtain from the King of Candy the release of some English sailors whom he held in captivity. The mission was unsuccessful. A century later, in 1763, an ambassador was sent to propose a treaty of friendship; but the negotiations were never carried to maturity. In 1782, after the conquest of the Dutch settlements on the Coromandel coast, a force was despatched by the Madras Government to reduce the Dutch possessions in Ceylon, and Mr. Hugh Boyd accompanied the expedition for the purpose of concluding a treaty of alliance with the King of Candy, by which the latter was to be required not only to supply provisions to the British troops, but to send a strong force to co-operate with the English. The King, however, refused to take part in the war against the Dutch or to conclude a treaty except with an ambassador commissioned from the King of England direct. It was not till the year 1795 that the British Government acquired a permanent footing in the island. Towards the close of that year an expedition organized by the Government of Madras reduced Trincomalee, Jaffna, and Calpentyn, and a preliminary treaty of alliance was concluded with the King of Candy. All that time the position of the Dutch towards the Native Government at Candy was defined by the last treaty which they had concluded in 1766. They considered themselves entire masters of the whole coast, but had never paid the tribute to the King which was stipulated for in the treaty. A Cingalese envoy was deputed to Madras, who concluded a definitive treaty on 12th February 1796, but the King of Candy, influenced by a party at his court, who favoured the Dutch interest, refused to ratify it. In the meantime the British troops had taken Negombo on the 4th February 1796 and summoned the garrison of Colombo, who surrendered on 16th February upon Articles of Capitulation by which the Dutch settlements were ceded to the British Government. (2) *First administration of the island.*—The administration of the conquered settlements in Ceylon was entrusted to the Government of Madras, but an attempt to introduce the Madras fiscal system proved unsuccessful, and shortly after this the island was transferred to the direct Government of the Crown. Mr. North was appointed the first Governor in 1798. In the meantime a revolution had broken out at Candy. The King was deposed by the Adigar or prime minister, Pilamë Tilawë, and died in 1798. Vicrama Rajah Singa, nephew of the Queen, was put in power through the influence of the minister, who, to secure the power in his own person, induced the Governor to enter into a scheme (see Tennant's Ceylon) to effect the removal of the King to the British territories and to depute the Adigar to exercise his power at Candy where a British subsidiary force was to be stationed. The project, which was to be carried out by means of an embassy to conclude a new treaty with the King, ended in utter failure; but the Adigar determined to gain his object by provoking a war. Several merchants, subjects of the British Government, were forcibly seized and plundered in April 1802. Compensation was refused, and in February 1803 a British force of 3,000 men occupied Candy, which was abandoned by the King and the inhabitants. Moottoosawmy, a member of the royal family, who, on the elevation of Vicrama Rajah Singa, had fled to the British territories, was set on the throne, and a treaty was concluded with him by which extensive districts were ceded to the British Government, a British subsidiary force was to be stationed at Candy, and the King was prohibited from diplomatic intercourse with foreign powers. By a separate agreement with the Adigar the new King was to reside at Jaffna with all the pomp of royalty, while the Adigar was to hold the real power at Candy. Encouraged by the success of his perfidy, the Adigar, Pilamë Tilawë, determined to secure the crown for himself, to seize the person of the Governor, Mr. North, and to exterminate the garrison at Candy. The plot for the seizure of Mr. North failed through an accident, but in June 1803 the natives rose on the garrison at Candy, and, after inducing them to capitulate on a promise of their

forms a close appendage to this Presidency, lying to the east of its southern extremity. The island is partially connected with the mainland by a chain of islands separating Palk's Strait from the Gulf of Manaar. This is the Rama Shetoo, or Rama's pier, of the Hindoos, the line of rocks which the monkey hosts carried from the Himalayas to assist Rama in his invasion of Lanka; and the Adam's bridge of the Mahomedans by which Adam was expelled from the island of Paradise. It consists of Manaar Island, 18 miles long and 2½ broad; Adam's bridge, a sand ridge, 30 miles long, with 3 or 4 feet of water above it at high tide; and Rameswaram Island, with cyclopean temple ascribed to Rama himself, whose idol is daily washed with Ganges water and attracts thousands of pilgrims. The Paumben passage is between this and the Madura town of the same name. Its extreme length from north to south, i.e., from Point Palmyra to Dondera Head, is 266 miles; its greatest width, 140½ miles, from Colombo on the West Coast to Sangeman Kande on the east. The territory, along the western coast, is occupied by a somewhat extensive plain; beyond which ranges, first of hills, and then of mountains, rise successively behind each other, and cover a great extent of the island. They have an altitude varying from 1,500 to 6,000 feet above sea-level; Pedar Tallagalla (the most elevated) is more than 8,000 feet above the sea. These hills are covered with extensive forests and dense underwood, which give to a great part of the island the character of jungle. The produce and wealth of Ceylon are not in proportion to its natural capacities. Much of its surface indeed is mountainous; and there are large sandy tracts along the coast. Rice, though almost the only object of indigenous native culture, is not raised in sufficient quantity for the support of the inhabitants. The most peculiar product is cinnamon, one of the most delicate of spices, and for which there exists an extensive demand in Europe. It is a species of laurel, from four to ten feet high, with numerous branches and with a light porous wood. It grows spontaneously over a great part of the island; but that reared in gardens in the vicinity of Colombo is considered the best. The bark, which is part of the value, is taken off when the plant is three years old, and requires no preparation except being spread out to dry. The cocoanut tree is also in great abundance; and its fruit, as well as coir a species of rope manufactured from its husk, are staple exports. A great quantity of arrack is distilled from its juice. Animals, chiefly wild, are abundant: but the only valuable one is the elephant, which is not so tall as on the Indian continent; but peculiarly active, hardy, and docile. No elephants are reared in a tame state; but they are easily caught and are tamed in eight or ten days. An unusual variety of precious minerals are found in Ceylon; the ruby, the amethyst, the topaz, and even the diamond; but none of them are of fine quality. There are mines of lead, iron, tin, and quicksilver; but little wrought. A very extensive pearl-fishery is carried on in the Straits of Manaar, about 15 miles from the shore; chiefly by boats from the coast. A species of conch shells called chunks, much used by the Hindoos for rings and other ornaments, is fished in the Straits of Manaar. Ceylon has an area of 24,702 square miles, with a population of 2,764,000, and a revenue of 12 lakhs of rupees. A census of the island in 1825 gave the population as only 754,000. The principal rivers of Ceylon are the Mahawilagunga, the Kalanygunga, the Kooloogunga and Maha Oya. Candy and coffee-producing districts of the central province are connected by rail with Colombo. The island is traversed in

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lives, treacherously massacred them and the puppet King Moottoosawmy. (3) *Occupation of Candy*.—The war which ensued with the King of Candy was carried on with great severity on both sides for two years. Hostilities ceased only from the exhaustion of both parties, and for the next ten years peace continued without any formal or amicable agreement. In the interval Pilamë Tilawë was executed by Vicrama Rajah Singa for treason in 1812. The inhuman barbarities which the King perpetrated disgusted and terrified his subjects, who only awaited a favourable opportunity to revolt. At length, towards the close of the year 1814, a party of merchants, who had gone from the British territories to Candy to trade, were seized by the King as spies and sent back horribly mutilated. War was immediately declared, and in February 1815 Candy was occupied almost without opposition. The King, Vicrama Rajah Singa, was made prisoner and deported to Vellore, where he died in 1832. On 2nd March 1815, at a Convention of the Chiefs at Candy, the King was formally deposed, the sovereignty of the whole island of Ceylon was vested in the British crown, and the preservation of the old form of Government of Candy and of the customs, laws, and religion of the people was guaranteed. For two years the country remained tranquil, and the terms of the convention were faithfully observed by the British Government. But the people had little sympathy with the Government, and, in 1817, they rose in rebellion. Towards the close of 1818 the rebellion was subdued and the whole country restored to order. Advantage was taken of the rebellion to modify the convention of 1815 and to emancipate the people from the oppression of their chiefs by limiting the terms of their personal service, commuting taxes to a tithe of the produce of the land, and transferring the administration of justice to a regularly constituted agency. Since then, with the exception of a few partial and unimportant attempts at rebellion, the peace of the country has remained undisturbed.

most parts by excellent roads. Of the towns and sea-ports of Ceylon, Colombo on the west coast is the seat both of Government and of almost all the foreign trade. It owes this advantage to its situation in the midst of the most fertile and productive territory in the island. Candy, the old capital, is the chief town of the central province. Newara Ellia, which is about 6,000 feet above sea-level, is a well-known sanitarium. Trincomalee has the advantage of a fine natural harbour. The value of this is greatly heightened by there not being on the whole coast of Coromandel a safe roadstead; so that all vessels driven from their station on that coast seek shelter at Trincomalee. Point de Galle at the southern extremity has a spacious and generally secure harbour, in a healthy situation. At Welligama or Belligam, in the vicinity, is a large Booddhist temple with a colossal statue of a king. Candy contains an extensive palace of the king and several Booddhist temples painted with gaudy colours. Jaffna is the centre of the cooly trade with Madras and is an old Dutch settlement. Matoora is celebrated for its diamonds, and was the birth place of Sir Henry Lawrence. There are about 178⅛ miles of railway in the island. The natives, called Singhalese, belong to the Dravidian race of Southern India, and speak a kindred language. The Veddahs are the aborigines of the island, and are found in the mountains and forests. They are the same race as the Veddahs of Madura, and may be regarded as the rudest specimen of the Dravidian population. Of the entire Ceylon population, 1½ millions are Booddhists, half-a-million are Hindoos, one-sixth million are Mahomedans, and the rest are Christians. The custom of the plurality of husbands, which prevailed formerly in Southern India, remains in places, and it is said to have been accompanied formerly to a certain extent with infanticide. The Portuguese and Dutch inhabitants retain their European customs, considerably modified by the adoption of those of the natives.

38. Ceylon is a crown colony, and is administered by a Governor appointed by the Queen, assisted by an executive council of five members and a legislative council of fifteen (including the executive). For administrative purposes the colony is divided into seven provinces, each under a Government Agent. The provinces are again sub-divided into districts, over each of which an Assistant Government Agent is appointed. There is a Supreme, Civil and Criminal Court, and District Courts at the chief stations of the several provinces. The Maldive Islands, which are sparsely inhabited by a race of Singhalese origin, speaking a broken dialect of Singhalese, are tributary to Ceylon, to which the sultan of the islands sends an embassy annually. The Cocos or Keeling Islands lying between lat. 11° 51′ to 12° 45′, long. 96° 50′ E. belong to the colony.

39. Particulars regarding emigration from this Presidency to Ceylon are contained in the article on Emigration in Chapter VII; and regarding the Candyan pensioners from Ceylon now resident at Vellore in the article on Political Pensioners in this chapter.

40. The principal articles imported into Ceylon from the Madras Presidency are grain and pulse, cotton piece-goods, provisions, cattle, oil-cakes, spices, sugar and seeds. The principal exports from Ceylon are betel-nuts and cotton piece-goods. In 1882-83 the merchandise imported into Ceylon from Madras was valued at Rupees 71,35,482 and the treasure at Rupees 9,66,194. The merchandise exported from Ceylon amounted to Rupees 34,72,428 and the treasure to Rupees 9,15,163. Of the articles imported into Ceylon from Madras in 1882-83, hides and skins amounted to 6,492 in number, valued at Rupees 2,808; coffee to 34,160 lb., valued at Rupees 6,325; sugar to 22,500 cwt., valued at Rupees 2,37,456; seeds to 36,283 cwt., valued at Rupees 1,34,459; spices to 3,728,693 lb., valued at Rupees 2,28,269; paddy to 129,557 cwt., valued at 2,25,572; rice to 1,006,750 cwt., valued at Rupees 30,16,232; other grains to 39,601 cwt., valued at Rupees 1,09,781; oil to 70,134 gls., valued at Rupees 60,180; coir yarn and rope to 2,825 cwt., valued at Rupees 20,062; and tobacco to 73,920 lb., valued at Rupees 16,739. The cotton piece-goods imported amounted to 4,023,421 yards, valued at Rupees 11,99,361, and to 345,780 pieces, valued at Rupees 98,518. The timber and wood imported was valued at Rupees 27,096, and the living animals, of which there were 76,023 head, at Rupees 4,18,918. In 1882-83 the cotton piece-goods exported from Ceylon to

Madras amounted to 4,967,321 yards, valued at Rupees 9,02,209, and to 2,286 pieces, valued at Rupees 860. The apparel exported was valued at Rupees 5,533 and the timber at Rs. 2,30,537. Of the other articles exported, cotton twist amounted to 66,976 lb., valued at Rupees 53,523 ; paddy to 31 cwt., valued at Rupees 72; rice to 155 cwt., valued at Rupees 524 ; other grains to 1,113 cwt., valued at Rupees 4,096; metals to 9,030 cwt., valued at Rupees 83,946; spirits, 152 gls., valued at Rupees 1,150; wine 130 gls., valued at Rupees 1,130; and malt liquors to 227 gls., valued at Rupees 727. In 1883 the number of vessels that entered inwards from ports in the Madras Presidency was 2,039, and 2,135 vessels cleared outwards to Madras ports.

RELATIONS WITH ATTACHED NATIVE STATES.

41. INTRODUCTION.—While two-thirds of India is administered in its higher offices chiefly by English officials, civil and military, the other third portion is immediately ruled by its own Hindoo and Mussalman sovereigns and chiefs. From states included in the latter the revenues derive practically no benefit; but on the contrary the rest of the Empire is charged with the excess expenditure on political establishments not met by tribute, and with the military defence. The control which the English Government exercises over the native states varies in degree; but they are all governed with the help and under the advice of a Resident stationed at their court. The authority of the chiefs is limited by treaties or engagements acknowledging their subordination to the British Government. They have no right to make war or peace, or to send ambassadors to each other or to external states; they are not permitted to maintain a military force above a certain specified limit; no European is permitted to reside at their court without permission; and the supreme power can exercise the right of dethronement in case of misgovernment. The Native States on the Western Coast are specially interesting; for it was with them that the first direct trade with India commenced. The Malayalam dominion of Cherma Permaul, formed a thousand years ago, was broken up on his retirement, and all the present chiefs of Malabar assert that their ancestors received grants from this Chola Viceroy (see the statistical account of the Malabar district). The rajahs first known to Europeans were the Rajah of Calastry, the Zamorin of Calicut, and the Rajah of Cochin. Subsequently relations were entered into with the Rajah of Travancore. England commenced to trade with the Zamorin's dominions in 1664, and in 1729 the Company acquired the famous pepper monopoly. In 1766 Malabar was conquered by Hyder Ally, and remained under his rule until 1791, when the chiefs and people agreed to acknowledge the supremacy of the British Government, and to pay tribute and taxes. Soon afterwards the Zamorin and other principal chiefs ceased to exercise independent jurisdiction. For many years now Travancore and Cochin have been the only two Native States on the Malabar coast. In the Carnatic there is one Native State still subsisting, Poodoocottah. In the Ceded Districts there are two, Bunganapully and Sundoor. The first of these three states in the interior is held by a Tamul, the second by a Mahomedan, and the third by a Mahratta family. A geographical and statistical account of each of these States is given in Vol. II, App. XII. The footnotes show the history of the past political relations between them and the British Government. The following information shows briefly the present situation of the States; as to internal constitution, political relations with this Presidency, and trade with this Presidency. Reference can also be made to Vol. II, App. XLV. for tabular information bearing on the same matters.

42. TRAVANCORE.—The Maharajah of Travancore,[1] H.H. Rama Vurmah, was born on the 19th May 1837. He began his English education under the tuition of

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[1] SKETCH HISTORY OF POLITICAL RELATIONS WITH TRAVANCORE.—*Petty Native Chiefs in Travancore.*—At the commencement of the eighteenth century the territory of Travancore was divided into a number of principalities of larger or smaller extent, each under its own chief, who was constantly engaged with his neighbours in struggles for pre-eminence. During the course of the century these chiefs were gradually brought under the authority of the Rajahs of Travancore. Wanjee Baula Permaul, whose reign extended from 1758 to 1799, having a strong body of troops disciplined and directed by a Flemish adventurer, was eminently successful in reducing these principalities under his power, and from the close of his reign may be dated the entire extinction of the authority of the petty chieftains in Travancore. (2) *First settlement of the English.*—The English first settled in Travancore in 1684 at Anjengo, when a Commercial Resident was appointed whose functions not long after became political. In the war in Madura and Tinnevelly in 1756, the Travancore army though not in actual alliance with the British, effected diversions in their favour against the Mahomedans and Poligars

Sir T. Madhava Row, and was elected a Fellow of the Madras University shortly after the establishment of that institution. On his brother's death, he became Rajah in supersession of his elder brother, who was excluded from the succession owing to unsoundness of mind. He was made a G.C.S.I. in 1882 and is a Fellow of several learned European societies. His nephew, the heir apparent to the throne, or Elliah Rajah, has the same name. He has also three grand-nephews, named

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whose country it entered for the purpose of plunder through the Ariyancauvoo or Poolairy and Aramboly passes. During the wars with Hyder Ally and his son, Tippoo Sultan, the British invariably found this Rajah a steadfast ally; and in that relation he was, in 1784, included in the treaty between the East India Company and the Sultan of Mysore. In 1788 the Rajah seeing Tippoo establishing himself at Palghaut and Calicut, and by his proximity threatening the lines of Travancore, which connects the ghauts with Cranganore, applied to the British Government for officers and sergeants to drill his troops, but this being refused he accepted the alternative offer that two of the Company's battalions should be stationed on his frontiers at his expense. In 1789 Tippoo Sultan attacked the Rajah, forced the lines which had been erected for the defence of the country on its northern frontier towards Cochin, overrunning and cruelly devastating the Travancore territory. Up to this point the Governor-General Lord Cornwallis had been prevented by the restrictions placed on his power by Act of Parliament from adopting measures to counteract the danger existing from the scarcely concealed hostile intentions of the Sultan of Mysore, but freed from this restraint by the open aggression of Tippoo on an ally, he at once decided on war as "a measure not less necessary to vindicate the insulted honour of the nation, than to provide for its future security by accomplishing at a favourable moment the reduction of the power of Tippoo Sultan." The result of this war was the treaty of 1792, which secured Travancore from further danger. (3) *Pepper contract between Travancore and Bombay.*—The pepper of the Malabar coast had, from the earliest times of the Company's trade, formed one of the chief articles of export. On 28th January 1793 the Rajah entered into an agreement, known as the pepper contract, to supply a large quantity of pepper to the Bombay Government for ten years, in return for arms and European goods. (4) *Treaties to pay subsidy to the Company.*—In 1795 the Rajah concluded a treaty by which he engaged to pay an annual subsidy adequate to maintain three battalions of sepoys, together with a company of European artillery and two companies of lascars, to be always stationed, if the Rajah desired it, in his country or on the frontiers near it, or in any other part within the Company's possessions where he should prefer. By a subsequent treaty in 1805 his successor agreed to pay annually, in addition to such subsidy a sum adequate to maintain one more regiment of the East India Company's native infantry; and, in case an additional force should be required for the defence of his territory against attack or invasion, to contribute such a sum as should appear to bear a just and reasonable proportion to his net revenues. It was further agreed that, in case the Governor-General in Council should consider that there were grounds for apprehending failure of funds to defray the expense of the permanent military force, or the extraordinary charges that might arise under the terms of the treaty, he was to have the power either to introduce at his discretion such regulations and ordinances as he might deem expedient for the internal management of the country, or to assume the direct management of such part or parts of the Rajah's territories as might appear necessary to render such funds efficient and available either in time of war or peace; provided that the Rajah's actual receipts from his territorial revenues should not be less than two lakhs of rupees, together with one-fifth of the net revenues of the whole of his territories; and the Rajah promised to pay at all times the utmost attention to the advice of the English Government, to hold no communication with any foreign State, and to admit no European foreigner into his service or to remain within his territories without the previous sanction of the British Government. Eventually the subsidy payable by the Travancore State was fixed definitely at Rupees 8,00,000 per annum. (5) *Peshcush formerly paid to the Nawab of the Carnatic.*—A sum of Rupees 13,319-8-0 is also paid by the Travancore State to the British Government, being the equivalent of the peshcush and nuzzerana which the Rajah agreed to pay to the Nawab of the Carnatic in 1764. (6) *Insurrection of* 1808.—The reign of Rajah Rama Vurmah Permaul, who succeeded Rajah Wanjee Baula Permaul in 1799, was a period of much confusion. In 1808 an insurrection broke out, headed by the Diwan Vailoo Tumby and his brother. The chief object was the assassination of the Resident, Colonel Macaulay, and a party of Nayars endeavoured to surprise him in his house at Cochin, but he escaped on board a vessel in the harbour. The officer commanding at Quilon was at first unable to cope with the greatly superior numbers of the rebels, but on being reinforced he marched out and defeated the Diwan who commanded a force of 30,000 men with 18 guns. A British force was then sent to invade Travancore from the south, which, after forcing the Aramboly lines near Cape Comorin and capturing the forts of Oodayagherry and Pulmanabapooram, advanced on the capital and opened up communications with the Quilon force. The Rajah tendered his submission and disclaimed sympathy with the insurgents. The State was required to defray the expense incurred by the British Government in this expedition, and a brigade was left at Quilon as a subsidiary force, agreeably to the treaty concluded in November 1795. The debts, however, into which the country was thrown by these events prevented the punctual payment of the subsidy, and the administration of the territory would have been assumed under the terms of the treaty of 1805 as the only means of ensuring their satisfactory settlement, when the Rajah died in 1811. (7) *Colonel Munro as Resident.*—The Rajah was succeeded by Lutchmee Ranee, who, according to the peculiar custom of the family of Travancore, assumed charge of the government until a male heir was born. She held it until 1814, during which time the British Resident, Colonel Munro, acted also as minister. Under his administration tranquillity was restored, the public services reorganized, debts discharged, and the financial prosperity of the kingdom secured. Lutchmee Ranee was succeeded by her eldest son, and the country was during his minority successfully managed by her sister as Regent, under the counsels of the British Resident. The young Rajah on attaining his majority in 1829 was formally installed. He died in 1846, and was succeeded by his brother Martanda Vurmah, whose death occurred in 1860, when the State devolved on his second nephew, Rama Vurmah; the first nephew, elder brother of Rama Vurmah, having been set aside for imbecility. (8) *Laws of succession in Travancore.*—The laws which govern the succession to the State of Travancore are very peculiar. The descent, according to the usages of the Nayars of the western coast, is in the female line. Thus on the death of a rajah the sovereignty passes, not to his sons, who can in no case inherit, but to his uterine brothers, if he has any. Failing these, or on their demise, it passes to his sisters' sons, or to his sisters' daughters' sons, and so on. Hence it follows that the only adoptions which are performed by the Rajahs of Travancore are, not of males to supply the place of sons of their own body, but of females through whom the line must be continued. Any failure in the direct female descent requires the selection and adoption of two or more females from the immediate relatives of the family who reside at certain places in Travancore. The females so adopted are designated the Tumbratties or Ranees of Attingal (their place of residence), and by the laws and usages of Travancore are assigned a distinguished rank as alone entitled to give heirs to the State, and enjoy many important privileges. Such an adoption occurred in 1788, when two sisters were selected and adopted as Ranees of Attingal. The younger sister died after giving birth to a female child, which also died. From the elder sister the present family of Travancore are descended, the late Rajah Martanda Vurmah being her grandson (daughter's son), the late Rama Vurmah her great-grandson (daughter's daughter's son). In 1857 the line of Travancore was again threatened with eventual extinction. The sister of the late Rajah Martanda Vurmah (grand-daughter, daughter's daughter, of the elder of the two sisters adopted in 1788) left five children, four sons, the second of whom was the late Maharajah Rama Vurmah and one daughter. This daughter died suddenly leaving only two sons. The Tumbratties of Attingal thus became extinct, and although the States after the death of the Rajah would devolve successfully on his four nephews and two grand-nephews, the line, unless recruited by the adoption of Tumbratties as before, would have expired with them. Under these circumstances, the late Rajah intimated to the Resident that, in strict conformity with former usage and precedents, he proposed to bring in two, the most eligible, female members from among his relations as senior and junior Ranees. Two ladies were accordingly adopted with the sanction of the British Government. In

Kerala Vurmah, Rama Vurmah, and Martanda Vurmah. The present Diwan is V. Ramiengar, C.S.I. The three Diwans immediately preceding him were Nanoo Pillay (a local official), A. Seshiah Shastry, C.S.I., and Rajah Sir T. Madhava Row, K.C.S.I. The first, third, and fourth are natives of the Madras Presidency and were among the early results of the educational policy of the British Government carried out in Madras in 1841 by the Government of Lord Elphinstone. They were all officials under the Madras Government before entering the Travancore service. The country is divided for administrative purposes into four divisions, each under an official known by the name of Diwan Peshcar, corresponding to the Collector and District Magistrate in British India. The divisions are again subdivided into talooks, of which there are altogether 31; each under a Tahsildar who is also magistrate within the limits of the talook. The Maharajah is entitled to 19 guns as salute in British India and 21 in his own dominions fired whenever he leaves or returns to the capital, or goes in state on public occasions, such as the Dusserah, his birthday, &c. The late Maharajah had 21 guns in British territory as a personal salute. The British Resident has a salute of 13 guns. The Nayar Brigade consists of 2 battalions of infantry (the first and second) and a small detachment of artillery. It is officered from the Indian Army. Generally there is one Major commanding the brigade, one Captain commanding one battalion and Staff officer, one Captain commanding the other battalion and Quartermaster. A Medical officer is attached to the brigade. The duties of the brigade consist in guarding forts, palaces, treasuries, jails, pagodas, public stores, and district

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1862 a sunnud was issued by the Governor-General conveying to the Rajah the assurance that on failure of natural heirs the adoption of a successor according to Hindoo law would be recognized. (9) *Arrangements as to jurisdiction over European British subjects.*—In 1871 a question arose relative to jurisdiction over European British subjects in Travancore, which was claimed by the Travancore Durbar both as an inherent right of sovereignty and also as having been admitted by the British Government when in 1837 Europeans not being servants of the British Government residing in Travancore were declared to be subject to the laws of that State. The Durbar was informed that having regard both to the position of the British Government as the paramount power in India and to its Treaty engagement with Travancore, the position assumed by that State could not be recognized. When the jurisdiction of Travancore was recognized in 1837, there were difficulties in the way of trying in British courts European British subjects other than servants of Government for offences committed in Native States. These difficulties had subsequently been removed by legislation, and the alteration of the law required some alteration in the hitherto prevailing practice. In consideration, however, of special circumstances affecting the States of Travancore and Cochin, and more particularly of the efforts made by these States to conduct their judicial administration on enlightened principles, Government consented to magistrates of the courts in Travancore and Cochin who are European British subjects and Christians, exercising over European British subjects in those States, subject to such control as the Resident had hitherto exercised and such advice as he was empowered by Treaty to offer, the same jurisdiction as may be exercised over them in British territory by European British subjects who are magistrates of the 1st class and Justices of the Peace. Under the same conditions the necessary powers were conferred on these magistrates to enable them to commit to the High Court at Madras such cases as in British territory are beyond the jurisdiction of European British subjects who are magistrates of the 1st class and Justices of the Peace. These arrangements were declared to be subject to revision if at any time the European Magistrates of these States failed to give satisfaction to the British Government. Accordingly it was provided that certain magistrates specified by name should try cases which may be dealt with entirely by magistrates, and that appeal should lie from their decisions to the courts of certain appellate Judges also specified by name. Offences which are too grave to be dealt with by magistrates are committed by Justices of the Peace in Travancore and Cochin to the Resident for trial, and the Resident's decisions are subject to appeal to the High Court at Madras. The gravest class of offences with which a Court of Session cannot deal are committed to the High Court at Madras. The Resident has also discretion to commit to the High Court cases committed to or coming before him as the Justice of the Peace. (10) *Introduction of free trade.*—In 1861 the Madras Government proposed the removal of certain fiscal restrictions in Travancore. By Act VI of 1848 the coasting trade of British India was freed from all duties, but Travancore as a Native State did not come within the scope of the enactment, and consequently the produce of Travancore when landed at British ports was charged with import duty as foreign goods; similarly the produce of British India, when exported to the ports of Travancore, was charged with export duty. The same was the case with goods passing the land frontier, though on some lines the duty had been mutually abandoned. The Maharajah on his part levied customs duty on imports and exports to British ports. Accordingly it was proposed that the produce of British India should be admitted free by land and sea into Travancore, certain articles which were either the subject of monopolies or produced so large a revenue that they could not be admitted free without financial embarrassment being excepted. These excepted articles were to be settled from time to time on the understanding that as the circumstances of Travancore safely permitted their number should be gradually reduced until all British Indian produce should enter free; the British rate of duty was to be levied by Travancore on all foreign produce imported into Travancore, exception being temporarily allowed on particular articles as provided in the case of British Indian produce; the same course was to be adopted in regard to the produce of Travancore when exported therefrom. The Travancore State was to raise the salt tax to the same level as that of the Madras Government; and the British tariff valuations were to be adopted as a general rule. On the part of the British Government Travancore produce (opium, salt, wines and spirits excepted) was to be admitted to the benefits of entry into British Indian ports free of duty; the Travancore duties on the excepted articles, tobacco and the like, so far as the British Government considered them equitable, were to be levied at British Cochin, and the proceeds were to be shared in such proportions as a commission to be appointed might deem equitable. (11) *Customs convention, &c.*—After some negotiation, a customs convention was entered into with Travancore in 1865 by the British Government, the terms of which are still in force and will be found described in the text. No formal contract was executed on this occasion. (12) *Recent succession, &c.*—In recognition of the late Chief's excellent administration of the Travancore State a sunnud was conferred on him directing that he should be addressed by the title of Maharajah in all communications from the British Government. Maharajah Rama Vurmah was created a Knight Grand Commander of the Most Exalted Order of the Star of India, and received the right of adoption. He died in 1880, and was succeeded by his brother Rama Vurmah, the first prince of Travancore; the first prince's two elder brothers being passed over on account of unsoundness of mind. The present Chief was in 1884 forty-seven years of age, and was created a G.C.S.I. in 1883. In 1881 H.H. Lutchmee Bye, the Senior Ranee of Travancore, was decorated with the order of the Crown of India.

cutcherries; in assisting civil officers; in repressing riots or tumults; in furnishing escorts for members of the Rajah's family; in parading on occasions of ceremonies connected with the Rajah's family; and on public state occasions; and in fatigue duties in and about the palaces, &c. The body guard establishment consists of 60 horses and 45 privates with the necessary complement of officers. The total establishment under the head of "Military" consists of 1,694 men of all grades, 4 guns, and 63 horses.

43. The present political relations with Madras remain the same as mentioned in paragraph 9 of the sketch history. The Resident at Travancore is appointed by this Government, and exercises general supervision and control, as authorized by the treaties which bind the Rajah to act on the advice of the British Government. Should any charges of maladministration come to the knowledge of the Resident they are laid at once by the Diwan before the Rajah, who orders an investigation in such way as shall be satisfactory to the Resident. The final disposal on subjects of importance, after the preparation of the measure by the Diwan and his discussion of it with the Resident, rests with the Rajah, with the approval, however, of the Resident. Measures are sometimes initiated by the Rajah, sometimes they are suggested by the Resident; but more frequently matters are brought forward by the Diwan. All matters concerning British subjects are disposed in consultation with the Resident. The Resident is kept informed of the general working of the various departments, so as to advise when necessary. The selection of the Judges is made by the Rajah with the Resident's advice or approval, who is also consulted before any Judge is removed. Cases involving capital punishments are submitted by the Diwan for the Resident's approval of sentence, before confirmation by the Rajah. Changes in modes of procedure, the conduct of business, &c., in the courts are made by the Rajah with the advice of the Resident. Enactments are framed, with the Rajah's permission, either by the Diwan or by the High Court, according to the nature of the subject and are fully discussed with the Resident, who accords his approval before they are finally sanctioned by the Rajah. It has always been found necessary for the British Resident to exercise supervision over the courts; he does not, however, correspond direct with them on matters judicially before them, making any suggestion he may desire to the Diwan. All correspondence with the British officers and Native States passes through the Resident. The Resident exercises the power of a Sessions Judge as regards European British subjects in serious cases.

44. The value of the entire trade of Travancore, exclusive of transactions on behalf of Government, amounted to Rupees 1,25,97,242 in 1882-83. The total exports and imports were respectively Rupees 77,03,446 and 48,93,796 in the same year. More than 81 per cent. of this total trade was with British India and 12 per cent. with Ceylon. Travancore also trades on a small scale with the United Kingdom and New York. The principal ports to which shipments are made are Bombay, Colombo, Tuticorin, Madras, Calcutta, London, and New York. The land trade is carried on chiefly with the adjoining districts of Tinnevelly and Madura. The principal articles exported to them are areca-nuts, coffee, palmyra, jaggery, salt-fish, and timber. The imports are tobacco, piece-goods, thread, rice, and paddy. By the customs convention now existing between the British and Travancore Governments, Travancore has undertaken: to raise the selling price of salt at the coast depôts to the British monopoly price, and at inland depôts to that price plus cost of carriage: to abolish import duty on all British Indian produce imported by sea or land, and on goods of foreign origin exported through British Indian ports or by land from British territory, receiving as compensation Rupees 40,000 a year; tobacco is not included: to levy the same import duty as the British Indian Government on foreign goods imported direct, except on cotton and metals which were to pay 10 per cent., and tobacco which was to pay 120 rupees per candy; the latter, however, has been raised since to 150 rupees per candy: not to levy export duty of more than 5 per cent. except on timber, pepper, and betel-nut. In consideration of this undertaking the British Government on its part has: to supply salt at Bombay on the same terms as to the Madras Government, namely levying no duty except three pies per maund for petty local expenses to declare Travancore sea-ports to be British Indian ports within the meaning of section 12, Act VI of

1863; and to levy no duty by sea or land on goods to and from Travancore. Opium is excepted from this last provision.

45. COCHIN.—H.H. Rama Vurmah, Rajah of Cochin,[2] was born on the 11th May 1835, and succeeded to the musnud on the 28th March 1864. He is of Cshatriya race. H.H. Veera Kerala Vurmah, Elliah Rajah or heir apparent, was born on the 30th August 1846. The First Prince of Cochin, Veera Kerala Vurmah, was born on the 13th February 1850. There are nine junior princes who are of age and on receipt of stipends of Rupees 4,200 each per annum; a Diwan or Minister and the head of the Revenue department; Peshcars who are invested with revenue authority and are also Magistrates with full powers; three Judges of the Appeal or Chief Court at the head of the Judicial department; and a Superintendent at the head of the Police department. The Diwans who have held office in recent years have been Shenkara Warrier, appointed 18th January 1840; Vencat Row, appointed 26th October 1856; T. Shungoonny Menon, C.S.I., appointed 12th March 1860. The military establishment consists of a small force of 5 commissioned and 40 non-commissioned officers and 273 privates chiefly employed as military guards. There are 4 guns used for salutes and a detachment of artillery composed of 2 non-commissioned officers and 18 gunners. A body guard of 1 jemadar, 1 havildar, 1 naick, and 13 troopers, is also maintained for attendance on the Rajah. He receives a salute of 21 guns in his own territory and of 17 guns at British military stations. By the Interportal Trade Convention of 1865 the inland transit duties were abolished and the Circar sea-ports of Malipooram and Naracal placed on the same footing as British ports, all goods passing from British India to a Circar port being declared free of duty and vice versâ. The revenue in the year 1882-83 amounted to Rupees 15,77,601 and the expenditure to Rupees 14,24,309. The total amount remaining to the credit of the Government at the close of the year was Rupees 33,47,348. The total value of the imports and exports by sea to and from Circar Cochin for the three years 1881 to 1883 give an average import trade from British territories of Rupees 9,30,877 per annum and export trade of Rupees 3,51,645 per annum.

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[2] SKETCH HISTORY OF POLITICAL RELATIONS WITH COCHIN.—*Genealogy of reigning family.*—According to tradition the Rajahs of Cochin claim to hold the territory in right of descent from Cherma Permaul above mentioned, who governed the whole country of Kerala, including Travancore and Malabar, as Viceroy of the Chola Kings about the beginning of the ninth century, and afterwards established himself as independent ruler. The genealogical table showing the descent of the present ruler of Cochin cannot be traced beyond the last three centuries, and even for this period the information is untrustworthy. From the commencement of the present century the information becomes better defined, and the following names appear in succession:—Rama Vurmah, died at Trichoor, 27th September 1806; Rama Vurmah, died at Vellarpully, 13th January 1809; Veera Kerala, died at Tripoondoray, 5th August 1828; Rama Vurmah, died at Tripoondoray, 5th November 1838; Rama Vurmah, died at Iringalacode, 29th May 1844; Rama Vurmah, died at Trichoor, 5th July 1851; Veera Kerala, died at Benares, 22nd February 1853; Ravivarma, died at Tripoondoray, 6th February 1864; Rama Vurmah, the present Rajah who ascended the musnud, 28th March 1864. (2) *Early relations with British.*—In 1759 the Rajah was attacked by the Rajah of Calicut, who was expelled by the Rajah of Travancore, and, as a reward for the service performed on that occasion, certain portions of territory were transferred from Cochin to Travancore. In 1776 the State of Cochin was conquered by Hyder Ally. It remained tributary and subordinate to Hyder and subsequently to his son, Tippoo Sultan, until the peace concluded by the latter with the British in 1792, when the claims of Mysore were transferred to the British. A treaty had previously been concluded in 1791 with the Rajah, by which he had agreed to become tributary to the British Government for his territories which were then in the possession of Tippoo, and to pay a subsidy of Rupees 1,00,000 annually. After the peace Chettewah Mannapooram was leased to the Rajah for ten years. (3) *Insurrection in 1809, and consequent treaty.*—In 1809 an insurrection took place in Cochin against the British power. This was suppressed, and a fresh treaty was then entered into, by which the Rajah agreed to pay, in addition to the usual subsidy of one lakh of rupees, an annual sum equal to the expense of one battalion of native infantry, or 1,76,037 Arcot rupees, making an aggregate payment yearly in six equal instalments of Rupees 2,76,037; the disposal of the amount of subsidy, as well as the distribution of the force maintained by it, whether stationed within or without the territories of the Rajah of Cochin being left unreservedly to the British Government. It was further stipulated that, should it become necessary to employ a larger force for the defence of these territories against foreign invasion, the Rajah should contribute towards the expense in proportion to his means. The Rajah engaged to be guided at all times by the advice of the English Government; to hold no correspondence with any foreign state without the knowledge and sanction of the Company; and to admit no Europeans to his service, and permit none to remain in his dominions, without the consent and concurrence of the Company. Power was given to the Company to dismantle or garrison any fortress in His Highness' territory. On the other hand the Company undertook to defend the integrity of the State territory against all enemies. Subsequently the annual subsidy to the British Government was reduced to Rupees 2,40,000, being one-half of the estimated amount of the revenue at that time; and at a still later period the payment was fixed at two lakhs only, which forms the pecuniary obligation of the State at the present day. (4) *Full right of adoption conceded.*—In 1862 the full right of adoption was conceded; that is to say, if there was no brother or son of a sister the eldest female Tumbooraun (member of the family) was to succeed as Regent, until an heir was born; and if the female Tumbooraunsn became extinct, women might be adopted to carry on the succession. (5) *Introduction of free trade.*—In 1865 certain fiscal restrictions in Cochin were removed. The arrangement differs from that made with Travancore only in respect to the inclusion in the guarantee of the average receipts from the import duty on foreign tobacco. The duties on the other articles were fixed with reference to the actual receipts of three previous years, accordingly in June 1871 Rupees 75,291-10-10 were paid as compensation to the Cochin Durbar. No formal agreement was concluded with the Cochin State. (6) *Recent succession.*—The late Rajah of Cochin, Ravivarma, succeeded to power, on the death of his brother, on the 5th May 1853. Rajah Ravivarma died in 1864 and was succeeded by Rama Vurmah, the present Rajah, who was created a Knight Commander of the Most Exalted Order of the Star of India in 1871. Rajah Rama Vurmah was in 1884 forty-eight years of age.

The principal articles of import are rice, paddy, wheat, and other grains, oil-seeds, piece-goods, twist, iron bars, hardware, copper and lead sheets, and slabs, &c. The exports comprise coir yarn, fibre, rope, coir-matting, cocoanuts, cocoanut-oil, coffee, cotton, pepper, ginger, lemon-grass oil, hides, horns, &c. Frontier customs stations being abolished, there are no available statistics of the inland traffic passing through the railway at Shoranore and Tiroor, and into British Cochin for export from the port of Cochin.

46. POODOOCOTTAH.—The Poodoocottah State [3] is surrounded by the British districts of Tanjore, Trichinopoly, and Madura. The British Government has no treaty with it, and the Rajah is exempt from tribute. The Rajah or Tondiman is the acknowledged head of the Cullan, or thief caste, one of the thirty branches of the Cunnia, or agricultural caste, in the southern districts. His subjects, numbering about 300,591 souls, are chiefly of the Cullan caste. The name of the present chief is Rajah Ramchendra Tondiman Bahaudur. The present Sirkele or Minister is the Hon'ble A. Seshiah Shastry, C.S.I. The Revenue department is composed of 1 Caurbaur and District Magistrate, 1 Deputy Caurbaur and Joint Magistrate, 3 Tahsildars and Sub-Magistrates, and 4 Deputy Tahsildars and Sub-Magistrates. The Judicial department consists of 1 Appeal Judge, who with the Rajah and the Sirkele constitute the Appeal Court, 1 Civil and Session Judge, 1 Moonsif, and 1 Small Cause Court Judge. The total receipts for the year 1883-84, including balances, were Rupees 7,76,197, and the total disbursements Rupees 3,75,335, leaving a balance to credit of Rupees 4,00,862.

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[3] HISTORY OF POLITICAL RELATIONS WITH POODOOCOTTAH—(1) *First connection with the English.*—The first connection of the British Government with this Chieftain, then usually called Tondiman, appears to have been formed at the siege of Trichinopoly, in 1753, when the British army greatly depended on his fidelity and exertions for provisions. Subsequently he was very serviceable in the wars with Hyder Ally and in the operations against the rebellious usurpers of the large zemindarry of Shivagunga in the Madura district after the cession of the Carnatic. Tondiman, in 1803, as a reward for his services, solicited favourable consideration to a claim preferred by him to the fort and district of Kilanelly, situated in the southern part of Tanjore, founded on a grant by Prataup Sing, Rajah of Tanjore, and engagements which were afterwards entered into by Colonel Braithwaite, General Coote, and Lord Macartney, on the faith of which he had retaken the fort from Hyder Ally. After a very complimentary review of Tondiman's services, the Government of Madras ceded to him the fort and district of Kilanelly—a cession afterwards confirmed by the Court of Directors, with the condition that the district shall not be alienated, and that it shall revert to the British Government upon satisfactory proof being given that the inhabitants labour under any oppressive system of management. Kilanelly yields a revenue of about Rupees 30,000 a year. The grant was also made subject to the yearly tribute of an elephant. The tribute, however, was not insisted upon, and in 1836 was formally excused. (2) *Rajah Vijaya Ragoonath Roy.*—Rajah Vijaya Ragoonath Tondiman died on the 1st February 1807, leaving two sons, the elder of whom, aged eleven, succeeded. During the minority of the young Chief the Resident at Tanjore exercised a strict superintendence over the affairs of the State, and procured a reformation of system in the revenue, police, and judicial departments, besides interfering to prevent particular acts of injustice. As the Rajah increased in age, this interference was gradually lessened, till about 1817 the Rajah was placed in charge of the whole administration. (3) *Rajah Ragoonath.*—Rajah Vijaya Ragoonath Roy Tondiman Bahaudur died in 1825 and was succeeded by his younger brother, Rajah Ragoonath Tondiman, who died on the 13th July 1839. (4) *The management of the country placed in the hands of the Tanjore Resident.*—Rajah Ragoonath Tondiman left two sons, Rajah Ramchendra Tondiman Bahaudur, aged nine years, the present Chief, and Trimal Tondiman, aged eight years. Until 1841 the administration was conducted by the widow assisted by two ministers, but in that year in consequence of representations of injustice by relations of the Rajah, the Resident at Tanjore was directed to reside at Poodoocottah as much as possible during the minority of the Tondiman, and to take the immediate superintendence and control of the business of the country which was to continue to be conducted by the ministers of the Rajah. (5) *Reform of the administration.*—The Resident on the receipt of these orders laid down rules for the guidance of the ministers, which prohibited expenditure beyond certain limits, grants of land, assignments of produce, creation of offices, and increase or decrease of emoluments without his sanction, and prescribed the mode in which public business should be carried on. (6) *Political change transferred to Collector of Madura.*—In the same year the Residency at Tanjore was abolished, and the charge of Poodoocottah was entrusted to the Collector of Madura, one of the adjoining districts. The administration of the State was prosperously conducted under his superintendence during the remainder of the minority; all debts were paid off, and a surplus invested in the funds of the British Government. (7) *Misgovernment by the Rajah.*—Since the Rajah attained his majority, the Government of Madras has more than once interposed to insist on the Rajah regulating his expenditure, to remind him that the Court of Directors in 1805 made it a condition that the grant to Tondiman of the district of Kilanelly should be liable to resumption upon satisfactory proof being given that the inhabitants laboured under any oppressive system of government, and to warn him that, should he continue regardlessly in his ruinous course of living, the British Government would be compelled either to withdraw the Political Agent from all connection with him, or to take the Poodoocottah country under their own control and management, and to assign the Rajah a personal allowance not to be exceeded on any plea. The Rajah having, in despite of all warnings, continued in a course of reckless extravagance and contracted fresh debts as fast as with the aid of the Political Agent his old ones were cleared off, was, as a mark of the displeasure of Government, temporarily deprived of some of his titles. These honours were restored provisionally in 1870 on his continuing to listen to advice on the management of his State. In 1854, owing to disturbances in the country, originating in part in the irregular conduct of public business by the present Rajah, who had then recently come of age, the Governor in Council decided upon the system of administration now in force. (8) *Political charge transferred to Tanjore and Trichinopoly, the Rajah being allowanced.*—The political charge of Poodoocottah was held by the Collector of Madura till 1865 when it was entrusted to the Collector of Tanjore; since 1874 it has been held by the Collector of Trichinopoly, who exercises a general supervision over the finances of the State and the appointment and dismissal of public officers. The Rajah receives a yearly allowance which he is not permitted to exceed. (9) *Right of adoption recognized.*—In 1862 a sunnud was granted to him by the Viceroy, Lord Canning, assuring him that the British Government would recognize the right of adoption, and that nothing should disturb the arrangement so long as his house should remain faithful and loyal to the Crown. In 1877 the Rajah adopted his third grandson by the only daughter of the junior Ranee Sahiba, and this adoption has been recognized and confirmed. Nuzzerana is not taken on succession to this State.

The Rajah maintains a force of 126 infantry, 21 troopers, and 3,260 militia, besides armed servants and watchmen. A salute of 11 guns with the title of His Highness has just been sanctioned, 1884. The present political relations do not vary from those shown in paragraph 1 of the foot-note. European British subjects are not triable by the Criminal Courts of Poodoocottah ; when cases occur, which is very seldom, they are generally disposed of by the Political Agent. In civil cases European British subjects are treated as natives of the State. The acts of the Rajah are subject to the revision of the Political Agent, with regard to appointments and dismissals of all public officers. The Political Agent supervises also the financial management of the Sirkele, the Rajah being restricted to his privy purse allowances. There is a full yearly report of affairs. The Political Agent can expel from the territory all disorderly persons and evil counsellors. The Madras Government receives petitions of complaints from the Rajah's subjects, and sends them for the report of the Political Agent, who advises the Rajah on all subjects of importance. There is no special trade between Poodoocottah State and British Territory. The country is poor and manufactures are very limited. In times of scarcity grain is brought in by carts from Tanjore and Trichinopoly. The principal points of contact between the two administrations are in the departments of salt, abkarry, and police. The manufacture of earth-salt is in Poodoocottah a royal monopoly, and there are reasons to suppose that a large quantity of this product is sent into British territory for illicit sale. Measures are under contemplation for abolishing the monopoly. Poodoocottah-made arrack being of an inferior quality and cheaper than British-made arrack, there is no doubt smuggling. The police force of Poodoocottah is at present under the supervision of the Superintendent of Police at Trichinopoly. The strength in 1883-84 was 4 Inspectors, 2 Sub-Inspectors, and 176 constables, or a total of 182. The establishment of a post office at Poodoocottah is contemplated, and the question of developing the postal system in the State is under consideration.

47. BUNGANAPULLY.—The Bunganapully State is situated in the Kurnool district. The chief with the title of Nawab is the head of the State, but he is in enjoyment of rather less than half of the revenue, the territory being subdivided and held in part by jagheerdars, of whom the greater number are related to the chief.[4] Under the sunnud granted to Ghoolam Ally Khan and renewed in the name of the present chief the jagheer is confirmed as an independent State free of peshcush and pecuniary demand, the chief being bound at all times to maintain faith and allegiance to the paramount power. The civil jurisdiction of the chief is unrestricted ; but in the administration of criminal justice he is debarred from mutilating criminals, and capital sentences must be sanctioned by the Madras Government before being carried out. The courts maintained in the State are (1) Sudder or highest Appellate Court exercising both judicial and revenue functions, presided over by the Nawab in person ; (2) Adawlut or Moonsif's Court with jurisdiction in cases valued up to Rupees 3,000 and presided over by a Moonsif

[4] HISTORY OF POLITICAL RELATIONS WITH BUNGANAPULLY. (1) *The first Jagheerdar.*—The Jagheer of Bunganapully was originally granted to Mahomed Beg Khan, eldest son of the Grand Vizier of Aurungzeeb. It was afterwards confirmed by successive grants from Mysore and Hyderabad; and at the treaty of 1800 was conferred on Moozafar Moolk and his heirs in perpetuity. The family continued in uninterrupted possession of the jagheer till 1825, when, in consequence of the disorders which prevailed and the frequent complaints which were made against the jagheerdar, it was proposed to annex the jagheer and make an allowance to the members of the family for their sustenance. (2) *Assumption of charge by British.*—This offer of a pension was rejected by the jagheerdar, who protested against the right of the British Government to resume his jagheer. According to the 5th and 6th Articles of the Treaty of 1800, concluded between the British Government and the Nizam, the jagheer had been ceded in perpetuity. But it was discovered from a correspondence which had taken place between the Resident at the Court of the Nizam and the then Diwan, previous to the signing of the treaty, that this jagheer was to form an exception to the countries ceded south of the Toongabudra. Government therefore withdrew from its intention of resuming the jagheer, and allowed the Collector of Cuddapah to examine the accounts of the jagheerdar and settle the claims of his creditors, to whom three-fourths of the net revenue were allotted, and the dividends regularly paid by the officer placed in charge of the jagheer. (3) *The jagheer restored.*—In 1848 the accounts being closed, the jagheer was restored to Houssain Ally Khan, the eldest surviving heir. Houssain Ally Khan died before a sunnud confirming the grant could be issued. He was succeeded by his nephew, Ghoolam Ally Khan, to whom, in 1849, a sunnud was granted, renewing to him and his heirs their former rights and privileges, with administration of civil and criminal justice, except in cases involving capital punishment, and stipulating that no grants should be made without a written document distinctly specifying that each alienation should hold good during such period only as the jagheer remained in the enjoyment of the grantee. All frontier duties in this jagheer were abolished. (4) *Right of succession confirmed.*—In 1862 a sunnud was granted to Ghoolam Ally Khan, guaranteeing that the British Government would permit and confirm any succession to his State which may be legitimate according to Mahomedan law. Ghoolam Ally Khan, C.S.I., died in October 1868, and his nephew and son-in-law, Futteh Ally Khan, the present jagheerdar, was recognized as his successor. This State has been exempted from the payment of nuzzerana on succession.

on Rupees 50 per month; (3) Magistrate's Court, with power to award imprisonment extending to one year and fine up to Rupees 500, presided over by a Magistrate on Rupees 45 per mensem; a Moolky Cutcherry which had hitherto been under a Tahsildar was abolished in 1883-84 and amalgamated with the Sudder Court. On the occasion of the visit of the Prince of Wales to this country in 1875 the title of Nawab was conferred in perpetuity on the present chief, Syed Futteh Ally Khan, and he was made a Companion of the Star of India. The area of Bunganapully is about 166 square miles; the population amounts to 30,754. The revenue is about two lakhs of rupees per annum, of which Rupees 1,71,099 are derived from land. The Collector of Kurnool acts as Political Agent for this State to the Madras Government. The present Nawab has two sons; and one brother, Syed Moortezah Ally Khan, aged 31. The present Diwan is Syed Imdad Ally, whose predecessors were Syed Piraun and Parsee Vencat Row. The Nawab does not maintain any military force. He has a retinue of a few unarmed sawars and peons, and one gun of obsolete pattern used merely for firing on the occasion of festivals. A salute has not been granted to him. Correspondence with the Government of Madras is carried on through the Political Agent, and it is this officer's duty to advise the Nawab in regard to the administration of the State. According to the terms of the sunnud the Nawab is bound to notify to the Agent all particulars when alienation of land is contemplated. The Nawab is by the same document bound to "cause justice to be rendered to inhabitants of Her Majesty's districts and others who may have pecuniary claims on any of the inhabitants of Bunganapully." Provision is also made for the extradition of criminals and for assistance in arresting offenders. There is one jail in the State under the charge of the Magistrate. There are no European British subjects now in the State. No register is kept of the trade between the State and British territory. It is inconsiderable, consisting merely of exports and imports of grain, tanning bark, chintz, and lacquered ware. In consideration of a compensatory payment of Rupees 3,000 per annum the Nawab, in October 1881, put a stop to the manufacture of earth-salt in the State. The Nawab maintains two elementary schools in the town of Bunganapully, one for teaching Teloogoo and the other for Hindostany, with a total strength of 77 pupils in 1883-84.

48. SUNDOOR.—Sundoor [5] is a small State with an area of about 164 square miles, and consists of two ranges of hills with an intervening valley. The whole

[5] HISTORY OF POLITICAL RELATIONS WITH SUNDOOR—*Early History*.—Sundoor is a small valley lying between two chains of lofty hills on the west of the town of Bellary, containing a regular fort built by Hyder Ally and Tippoo Sultan at great expense, which is not now kept up. This jagheer was at the end of 1853 held in possession by Vencat Row Hindee Row Ghorepoora, the nephew and adopted son of Siva Row, who held possession at the time when the districts of Bellary and Cuddapah were ceded to the British Government after the fall of Seringapatam in 1799. (2) *History till* 1815.—The founder of the family was Mallojee Row Ghorepoora, an officer in the army of the Beejapore State, whose son Beirojee entered the service of the Rajah of Sattara. The Sundoor State had been previously held by a Bedar Poligar, but Beirojee's son Siddojee took Sundoor from the Bedars, and his conquest was confirmed to him and his heirs by Sumbhajee, the successor of Sivajee. Siddojee died in 1715, and was succeeded in Sundoor by his second son Gopaul Row, whose fate is involved in obscurity. All that is known of the history of that time is that Sundoor formed a part of the principality of Moraury Row, the Mahratta Chief of Gooty, who was deprived of his dominions by Hyder Ally in 1779. His adopted son, Siva Row Baupa, fell in battle in 1785 in a vain attempt to recover his patrimony, leaving a son, Siddojee, only two years old, under the guardianship of his uncle, Vencat Row. In 1790 Vencat Row and his nephew, Siddojee, with a party of their own adherents, assisted by the inhabitants of Sundoor, expelled the Governor of Tippoo Sultan's fort and got possession of the place, which they were allowed to retain after the peace in 1792 as part of the ancient inheritance of their family. Siddojee died without issue in 1796, on which his uncle, Vencat Row, applied to Dowlat Row, the half-brother of Moraury Row, for one of his sons to be adopted by his widow, which was refused. He then made the same request of Eshwunta Row, who also refused, but said that he might have one of the sons of his younger brother, Khundee Row. On application being made to Khundee Row, he consented and gave his son, Siva Row, the Chief who held the jagheer in 1799. None of the descendants of Moraury Row ventured to reside in Sundoor during the life of Tippoo, because, being completely surrounded by his dominions, they were afraid of being seized by treachery. But on his death in 1799, Vencat Row and Siva Row went to Sundoor. The Peshwa about the same time issued a sunnud, granting Sundoor as a jagheer to Eshwunta Row. No use was made of this sunnud until some years after, when Eshwunta Row sent a copy of it with a letter to Vencat Row, saying that he wished that means should be taken to prevent dissensions in their families. Vencat Row therefore sent for Nursinga Row, the second son of Eshwunta Row, in 1804, and gave him an allowance of 100 pagodas monthly. But as Nursinga Row attempted to form a cabal for his own interests, he was dismissed in 1808, and Siva Row continued to hold the jagheer as an independent prince until the Mahratta war. The Peshwa indeed always regarded him as a rebellious vassal and endeavoured by fraud and stratagem in 1815, on pretence of making a pilgrimage to the temple of Comarasawmy, to get possession of the place. (3) *The Jagheer resumed by the English*, 1817, *but restored*, 1818.—On the breaking out of the Mahratta war, Siva Row was summoned by Brigadier-General Munro to surrender Sundoor, and was promised a jagheer of nine thousand rupees in any part of the British territory he pleased. The surrender of his fort and abdication of the government of his little valley were quietly made by Siva Row on the 27th October 1817. It was at first determined that the territory of Sundoor should be annexed to the British dominions, that Siva Row should have other territory assigned him, subject to the laws and regulations of the British Government; and that his power over the inhabitants of his future jagheer should be that only of an ordinary zemindar. But after the lapse of a few months, Government determined on restoring the jagheer

tract lies within the British district of Bellary, the Collector of which is Political Agent for the State to the Government of Madras. The capital, Sundoor, is situated 30 miles to the west of Bellary, and the State divides the British talook of Bellary from the Mysore talook of Coodligy. The Southern Mahratta Railway line runs about five miles to the northward of its northern boundary and nearly parallel therewith. On one of the highest hills, Ramanamullay or Ramandroog, a sanitarium has been formed for European troops serving at Bellary. The mean elevation of the valley above the sea is 1,500 feet and of the hill ranges 3,000. The convalescent depôt however has been little resorted to of late years, invalids being sent to Wellington in preference. The present chief, Vittala Sahib Ghorepadde, succeeded in 1879 on his brother's death. He is married and has a daughter. His only other living relative is Baula Sahib, his full brother. During the six years of the Rajah's reign and the preceding fifteen years, the administration of the territory has been conducted by Mr. Macartney, Agent to the Rajah. The net revenue realized in 1883-84 from all sources was Rupees 38,566, and the net expenditure amounted to Rupees 32,677. The Rajah maintains no military force; nor has he been granted a salute. In fiscal matters the State enjoys considerable independence. No convention has ever been concluded, limiting the power of the Rajah in respect of coining money, imposing transit duties, levying revenue on salt or ardent spirits or stamps. The Government of Madras have during the past few years prescribed the submission of an annual budget as a condition of good administration, and require the Rajah to restrict the expenditure on his civil list to one-third of his income, and to satisfy the Political Agent that he spends a fair proportion of the revenue on public works and police. They have also concluded a convention with the chief, under which he leases to them 40,000 acres of forest land for 25 years at a rental of 10,000 rupees per annum. Under scientific administration the tract thus acquired promises to yield a good revenue and become a valuable property. European British subjects, their servants, and others not being subjects of the Rajah, who commit offences upon the plateau of Ramandroog, are amenable to the Court of the District Magistrate of Bellary; but this plateau covers only one square mile in area. There is very little trade between Sundoor and the surrounding British territory.

POLITICAL PENSIONERS AND STIPENDIARIES.

49. Carnatic Pensions.—The history of British intervention in the Carnatic has already been given in the articles on History and Relations with Foreign Powers. The history of political relations with the Carnatic Nawabs is shown in the foot-note.[1] The assumption of the internal administration of the Carnatic by the

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of Sundoor to Siva Row; and the Collector of Bellary was directed by the Madras Government, in June 1818, to deliver over both the fort and district of Sundoor to him without delay. This order was immediately carried into effect; but the terms on which the jagheer was to be held were not finally determined until some years after. In 1826 a formal sunnud was given to Siva Row. It confers upon him and his heirs for ever the jagheer of Sundoor free of all pecuniary demands; leaves in his hands the entire management of revenue, police, and civil justice, on the condition of maintaining faith and allegiance to the British Government, of maintaining a strict watch over the public peace of the jagheer, of not affording an asylum to offenders from British territory, but of delivering them up or assisting the officers of Government sent in pursuit of them, and of causing justice to be rendered to the inhabitants of the British territory and others who may have pecuniary claims on any of the inhabitants of Sundoor. It was also stipulated that the Chief should be answerable for the good government of his jagheer, to ensure which the interposition of the Madras Government when necessary was provided for. (4) *Death of Siva Row.*—Siva Row remained in undisturbed possession of his jagheer till the day of his death, which occurred on the 2nd May 1840. He left no son of his own, but he had an adopted son, Vencat Row, the son of his brother, Boojunga Row. (5) *Vencat Row succeeds.*—The title of Vencat Row Hindee Row Ghorepoora to succeed was acknowledged by Government, and a sunnud was granted to him. The terms of the sunnud are the same as those granted to Siva Row, with the exception that a provision was entered prohibiting punishment by mutilation, and the jagheerdar was restricted from exercising the power of sentencing capitally or executing persons capitally convicted, without the sanction of Government being previously obtained. (6) *British sanitarium at Ramandroog.*—In 1847 the jagheerdar agreed to the establishment of a sanitarium for British troops on the tableland of Ramandroog and to cede the police and magisterial jurisdiction of the hill. The jurisdiction of the criminal courts of the Bellary district was therefore extended to the hill. An annual quit-rent is paid to the jagheerdar for the ground occupied for public and private purposes. (7) *Recent succession.*—Vencat Row died in 1861 and was succeeded by his eldest son, Siva Shunmookha Row, who was succeeded by his brother, Vittala Sahib. He was entrusted with the management of the jagheer in 1879 when the sunnud of 1841 was renewed. The jagheer has been exempted from the payment of nuzzerana on succession. (8) *Right of adoption.*—The Chief of Sundoor has received a sunnud granting him the right of adoption.

[1] Sketch History of Political Relations with the Carnatic Family—*English and French in* 1740.—When war broke out in Europe in 1740, the English possessions on the Coromandel coast consisted of Fort St. David and a tract of territory around Fort St. George, extending about five miles along the coast and one mile inland. In the hostilities

British Government in 1801, and the change in the succession, led to the grant of stipends to the different members of the families of the Nawabs Mahomed Ally Khan, Wallajah, and Oomdat-ool Oomrah and to some of their officers and dependents. The total annual amount of these stipends at first granted was seven lakhs. Many additional grants to various claimants, distant relatives, connexions, or servants and dependents of these nawabs were made subsequently, the last grant on this account being made in the year 1840. The aggregate amount of these subsequent grants was three lakhs of rupees per annum. The amount now paid on account of these stipends to the descendants of the original grantees has been

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between England and France which extended to their respective possessions in India, Madras was captured by Labourdonnais in 1746, but was restored after the peace of Aix-la-Chapelle. The struggle for supremacy between the French and English hinged upon the contest of two rivals for the Nawabship of the Carnatic. (2) *Contest for the Nawabship.*—The Carnatic was one of the subdivisions of the great Soobahdarry of the Deccan. Nizam ool moolk, Soobahdar of the Deccan, had appointed Saadat Oollah to be Nawab of the Carnatic. He died in 1732, and was succeeded by his nephew, Dost Ally, whose daughter married Chunda Sahib, the finance minister. At this time the Rajah of Trichinopoly, who was subordinate to the Nawab, refused to pay his dues, and Chunda Sahib marched to punish him, upon which the Hindoo Rajahs invited the assistance of the Mahrattas. In the contest which ensued Dost Ally was killed, and Chunda Sahib was carried prisoner to Poona. Nizam ool moolk then appointed one of his own officers, Anwar-ood-deen Khan, to the vacant nawabship. In the meantime Chunda Sahib was released from captivity and his claims to be nawab were supported by the French. Anwar-ood-deen Khan and his eldest son were killed in battle, and the second son, Mahomed Ally, was supported by the English. It was during this war that Clive made his celebrated defence of Arcot against the army of Chunda Sahib. This contest, which was prosecuted with much determination and various success, during which the French were reduced to great straits and Chunda Sahib was compelled to take refuge with the Rajah of Tanjore, by whom he was murdered, resulted in the conclusion of a treaty between the English and French in December 1754, subject to the confirmation in Europe, by which Mahomed Ally was practically left Nawab of the Carnatic, and the English and French agreed to restore their possessions, with exception of places specified, to the native powers, and to put their establishments on an equal footing. (3) *English and French war of* 1756.—Hostilities, which in the interval had never entirely ceased, were carried on with redoubled vigour after the declaration of war between England and France in 1756. Through their influence at the Court of the Soobahdar of the Deccan, the French had obtained the Northern Circars. They captured Fort St. David and laid siege to Madras, and the siege was raised in February 1759 only by the arrival of an English fleet. The tide of war however soon turned in favour of the English. The French were driven from their settlements, and in January 1761 Pondicherry surrendered; but the settlements were restored by the Treaty of Paris in 1763, the 11th Article of which recognized Mahomed Ally as Nawab of the Carnatic and Salaubut Jung as Soobahdar of the Deccan. (4) *First cession of the Carnatic to the English.*—By the overthrow of the French, Mahomed Ally was established as Nawab of the Carnatic without a rival. But he had contracted large debts to the English, on whom the expenses of the war chiefly fell. In consideration of this and of the services rendered him by the English, the Nawab conferred on them districts yielding an annual revenue of upwards of four-and-a-half lakhs of pagodas, for which they had also obtained a firmaun from the Emperor of Delhi. As the result of the war with Hyder Ally, the Madras Government were thrown into great pecuniary difficulties, and they applied for aid to the nawab, on the ground that the expense of the military defence of his country fell on them. The nawab however appealed to a treaty concluded in 1781 with the Bengal Government, by which he was exempted from all pecuniary demands beyond the expense of ten battalions of troops, and was recognized as hereditary sovereign of the Carnatic, besides obtaining the promise of the restoration of Tanjore and certain districts occupied by Hyder Ally. Against this treaty the Madras Government remonstrated, and at length after much negotiation it was agreed on 2nd December 1781 that the revenues of the Carnatic should be transferred to the British Government for five years, the nawab receiving one-sixth for his private expenses. (5) *Its temporary restoration.*—No sooner was this assignment made than the nawab set himself to defeat it. By taking advantage of misunderstandings then existing between the Supreme Government and the Government of Madras, he succeeded in obtaining an order in January 1783 for the restoration of his revenues, which order the Madras Government did not carry out, as the arrangements of December 1781 had in the meantime been approved by the Court of Directors. The Board of Control, however, which had just been created, took the management of the Carnatic affairs out of the hands of the Court of Directors, and ordered the restoration of the revenues to the nawab, and the assignment of twelve lakhs a year for the payment of his debts to the Company and to private creditors. Therefore by the preliminary treaty of 1785 it was arranged that the nawab should pay twelve lakhs of pagodas a year towards the payment of his debts and four lakhs to meet current charges, territorial security being given for punctual payment. The expense of the peace establishment was estimated at twenty-one lakhs, and it was proposed that this should be met by the Madras Government, the nawab, and the Rajah of Tanjore, in proportion to their respective revenues. At this rate the nawab's contribution would have been ten-and-a-half lakhs. It was fixed at nine lakhs, and by the treaty of 1787 it was agreed that the nawab should pay this sum for the military defences in peace besides the twelve lakhs for his debts; that in time of war the contracting parties should each pay four-fifths of their revenues, the nawab being first allowed to deduct the value of certain jagheers; and that in case of failure of payment by the nawab certain districts should be assigned as security. By this treaty also the nawab relinquished direct political relations with other native states. The Court of Directors however were of opinion that the abatement of one-and-a-half lakhs, which was allowed to the nawab, should have been made rather from the assignment of twelve lakhs for liquidation of the debts than from the subsidy, and therefore directed that the contingent should be established at eleven lakhs, being ten-and-a-half lakhs as the contribution proportioned to the revenues, and 50,000 pagodas paid as tribute by the Rajah of Tanjore. In this arrangement the nawab, not without remonstrance acquiesced. (6) *Treaty of* 1792 *with the Nawab.*—When the war with Mysore broke out in 1790, as no contributions could be realized through the nawab's officers, it was resolved to take the direct management of the country during the war. On the conclusion of peace in 1792, this temporary arrangement came to an end, and as all parties were dissatisfied with the treaty of 1787, some new arrangement was necessary. A new treaty was therefore concluded in 1792. This treaty stipulated that the British Government should maintain a force, for the payment of which the nawab should contribute nine lakhs of pagodas yearly; that the country should be garrisoned by British troops; that in the event of war the British Government should take the entire management of the country, paying to the nawab one-fifth of the revenues; that the assignment for the debts of the nawab should be reduced to 6,21,105 pagodas; that the British Government should collect the tribute of the poligars in the nawab's name, and give him credit for it in his contribution; that on failure of payment the British Government should assume the management of certain specified districts; that if the nawab required additional troops, they should be separately paid for; and that the nawab should renounce political intercourse with other states and be included in all treaties relating to the Carnatic. (7) *Final assumption of the Carnatic in* 1801.—Mahomed Ally was succeeded by his son Oomdat-ool Oomrah on 16th October 1795. The treaty of 1792 was found to have the most injurious and oppressive effects. The subsidy indeed was regularly paid, but to meet his liabilities the nawab contracted heavy loans, and to liquidate them assigned to his creditors the revenues of his country,—a system which resulted in the most cruel and grinding oppression. Several attempts were made to remedy this state of things, but without much success. On the fall of Seringapatam, a treasonable correspondence was discovered, which had been begun by Mahomed Ally and his son with Tippoo Sultan shortly after the conclusion of the treaty of 1792. The object of this secret correspondence was most hostile to the interests of the British Government. It had been continued by Oomdat-ool Oomrah as late as the year 1796, and was in direct violation of his treaty obligations.

diminished by lapses to little more than one lakh and thirty thousand rupees per annum. The continuation of Carnatic stipends of 1801 to the heirs of the stipendiaries is made entirely at the discretion of the Governor in Council, and is regulated by precedent and by the rulings of the Court of Directors.[2] The Government have recently ruled that except in certain specified cases, these stipends will lapse on the death of the present grantees. Some of the stipends latterly granted were given in lieu of jagheers or land assignments formerly given by the nawabs but now resumed by the British; in these cases the stipendiaries retain the name of jagheerdars. Others of the stipendiaries are called yeomiahdars, as their

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Enquiry was instituted which fully proved the guilt of the nawab. The British Government therefore declared itself released from the obligations of the treaty of 1792, which had been thus flagrantly violated, and resolved to assume the government of the Carnatic, making a provision for the family of the nawab. Oomdat-ool Oomrah died on 15th July 1801, before the conclusion of the proposed arrangements. Terms framed on the above basis were offered to his reputed son Ally Houssain, who had been nominated by Oomdat-ool Oomrah as his successor. But they were rejected by him. Negotiations were then opened with Azeem-ood Dowlah, nephew of the Nawab Oomdat-ool Oomrah. If the right of succession had not been forfeited, Azeem-ood Dowlah would perhaps have had stronger claims than Ally Houssain. He was the grandson of Mahomed Ally, and great-grandson by both parents of Anwar-ood-deen, the founder of the family of the Carnatic. With him an engagement was made on the 31st July 1801, by which he renounced the civil and military government of the Carnatic and received a stipendiary provision. This treaty was ratified by the Governor-General in Council. But the Madras Government were directed to add certain explanatory articles, if this could conveniently be done, so as clearly to set forth Azeem-ood Dowlah was acknowledged by the free grace and favour of the British Government, and not by reason of any hereditary rights which had been entirely forfeited, and also to regulate the disposal of jagheer lands and the calculation of the nawab's share of the revenues. The nawab willingly agreed to the modifications proposed. (8) *Succession of Nawabship declared with Government.*—On 3rd August 1819 Azeem-ood Dowlah died. Azeem Jah his son was informed that as the treaty of 1801 did not stipulate that the rank and dignity of Nawab of the Carnatic should be hereditary in the family of Azeem-ood Dowlah, his succession depended on the pleasure of the Supreme Government. Azeem Jah was however recognized. It was not considered advisable to conclude any new engagement with him. The resolution to continue to him the dignities and benefits enjoyed by his father under the treaty of 1801, and his cheerful acceptance of these at the hands of the British Government, were held to constitute a confirmation of the treaty preferable, considering the relative positions of the parties, to the formal conclusion of precise stipulations. (9) *Abolition of the title.*—Azeem Jah died on 12th November 1825. His infant son, Mahomed Ghouse, was recognized as his successor under the guardianship of his uncle, Azeem Jah. He died without issue on 7th October 1855, and the succession was claimed by Azeem Jah. But as the treaty of 1801 recognized no hereditary right, and was a purely personal treaty with Azeem-ood Dowlah; and as the successions in 1819 and 1825 had been by express permission of the British Government and conveyed no right of pledge; and as, in the absence of all obligation to continue the succession to the titular dignity there were grave reasons of expediency against it, Government declared that the title, privileges, and immunities of the family were at an end. The family was liberally provided for, a pension of a lakh and-a-half of rupees and the position of the first native nobleman of Madras being assigned to Azeem Jah. (10) *Title of Prince of Arcot instituted.*—With this arrangement Azeem Jah was not content, and he addressed frequent memorials on the subject to the Home Government. While Government declined to reopen the question of the re-establishment of the Nawabship of the Carnatic in the person of Azeem Jah, the title of Prince of Arcot was in 1867 granted to him and his heirs; a pension of three lakhs of rupees, which was to cover all claims whether by the prince, his relatives or dependents, was assigned to him, and one-half of this amount was under like conditions to descend to his successors; a large sum was also allowed to the prince to pay off his debts which were enquired into and adjusted by a British officer. The prince and his successors in the title were exempted from the jurisdiction of the civil courts, but the exemption which Azeem Jah enjoyed as regards the criminal courts was continued for his life only. Azeem Jah and his family were also permitted to reside at any place which the Madras Government might think proper. A personal salute of fifteen guns was granted to Azeem Jah on occasions of special ceremony. (11) *Arrangements for continuance.*—The titles and honours and the perpetual portion of the pension were to descend to the representative being in the direct male line of Azeem Jah; authority was not given to him to adopt in case of failure of male issue, but the prince for the time being was to choose, subject to the approval and confirmation of Government, who should succeed on his death, the choice being limited to his own sons or grandsons, or on failure of male issue to one of the descendants of Azeem Jah in the direct male line. Azeem Jah died in January 1874 and was succeeded by his son Zaheer-ood Dowlah to whom, as a special act of grace, a personal salute was granted similar to that enjoyed by his father. Zaheer-ood Dowlah was made a G.C.S.I. in 1877. (12) *Present holder of title.*—Zaheer-ood Dowlah died at Madras on the 16th June 1879, and was succeeded in the title by his half brother Intilzaum-ool-moolk. Mooaziz-ood Dowlah, the youngest and last surviving brother of the present prince, died on the 12th April 1884. He was the last successor to the title named in the letters patent, and by his death the nomination of a successor to the principality of Arcot devolves upon Government. (13) *Legal protection of the family.*—Under India Act XXXVII of 1858 no action can be commenced or prosecuted and no process can issue against certain specified surviving members of the family of the late Nawab of the Carnatic and against certain specified relatives and retainers except with the consent of the Governor in Council. By India Act XX of 1873—The Prince of Arcot's Privilege Act—the privileges and immunities, which were personally attached by the Act of 1858 to Prince Azeem Jah and certain members of his family, were continued to his sons on succeeding to the title. Under section 2 of this Act no civil suit can be prosecuted against the person or property of the holder for the time being of the title of Prince of Arcot, unless with the consent of the Madras Government. Section 3 declares the Prince of Arcot to be incapable of contracting. This Act was to remain in force so long only as the title was held by Azeem Jah or by one of his four sons, viz., Mahomed Bady Oollah, Ahmed Oollah, Noor Oollah Miyaun, and Ghoolam Moohi-ood-deen.

[2] CONTINUATION RULES FOR CARNATIC STIPENDS OF 1801—*Paragraph* 14 *from the Court of Directors, No.* 2, *dated* 11*th March* 1846.—"The plan of reduction which we are disposed to adopt is the following:—On each occasion of granting or renewing a pension, it is even now customary to call for a list of the persons to be supported from the amount. This list being before your Government, the pension should be divided into shares corresponding to the several claims, and these shares should be drawn upon the separate receipts of the persons interested whenever that course would not be inconvenient or repugnant to native feelings; and when not so drawn, the most effectual precautions should be taken against the concealment of casualties. The majority of the sharers would probably not be in such proximity of relation to the original grantees, or to the family, as would require the continuance of any portion of the share allotted to them beyond their own lives. In the case of sharers who were persons of some consequence, as the principal representatives of a branch of the original family, there probably would be reasons for a temporary continuance, and in that case we would not arbitrarily deduct any fixed proportion from the amount, but would discontinue as much as the deceased holder is known or may be supposed to have expended on his own person or dignity, dividing the remainder among those who had previously been supported by it. By this rule the public treasury would be gradually relieved from the very great present burthen of these pensions, while the relief would be effected with little hardship to individuals." (2) *Paragraph* 51 *from the Court of Directors, No.* 1, *dated* 22*nd May* 1850.—"The Acting Government Agent, Assistant Surgeon Balfour, considers the rules which relate to Carnatic stipends too favourable for the case of what are called jagheer pensions, many of these having been originally granted for one life only. We are of opinion however that the rule ought not to be that of deduction by thirds on successive lapses, since, as we have repeatedly remarked, such a rule is liable to interfere with the life interests of persons receiving, and entitled to receive, support from the stipend. We are willing that (as stated in the minute of your Government, dated 16th October 1849) each of these cases should be decided by Government on its own particular

stipends are the equivalents of yeomiahs or daily allowances made to them by the nawabs. In all matters relating to their stipends these persons come under the same rules as the other stipendiaries of 1801. On the death of Nawab Ghoolam Mahomed Ghouse Khan in 1855, and the consequent resumption of the fifth of the revenues heretofore allowed to the titular nawab, the Government granted stipends to all members of his immediate family and to all his chief officers, servants, and dependents. The total amount thus granted was upwards of five lakhs per annum, and the number of persons stipended was nearly five thousand, of whom one thousand six hundred and sixty-nine now remain; the rest have been transferred to other places, have died or have commuted their stipends. The total amount of the Carnatic stipends of 1855 including pensions which are paid at out-stations, now aggregates a little more than three lakhs sixty-nine thousand per annum. The continuations of the stipends of members of the immediate family are made, under rules laid down by the Government of India, for two or three lives only.[3] These rules related originally to Tanjore, but were made applicable to the Carnatic stipendiaries of 1855 by that Government in 1856. It will be seen that the essential principle is their gradual diminution ending in total discontinuance. The rule observed is that on the death of the first holder a half may be continued to his family, that on the death of these second holders a half of their reduced stipends may be continued to their families, and that after that the stipend lapses 'in toto' to Government. The stipends of all persons other than the immediate family of 1855 are life-grants, and cease absolutely with the deaths of the holders. In the latter case the local Government has discretionary power to continue a moiety of the stipends to widows. The Government have however ruled recently that except in certain specified cases, these stipends will lapse on the death of the present grantees. The family of the late Prince Azeem Jah of Arcot enjoy a special perpetual stipend of a lakh and-a-half of rupees per annum, of which one lakh is divided among the members of the family, and the remaining fifty thousand rupees is set apart as an appanage of the title in addition to the personal share of its holder. Among the different descriptions of Carnatic pensioners there are now as many as 960 drawing stipends less than 5 rupees per mensem. Of these 355 are widows whose average stipend is Rupees 1-15-4$\frac{7}{8}$. In 1845 the Government ruled that no continued pension should be less than 2 rupees per mensem, but the rule has since been allowed to lapse, and pensions as small as 4 annas have been continued. The doles now given are altogether very scanty, especially with a view to the diminished purchasing power of money. The Government have recently ruled that in future no stipend of less value than Rupees 15 per mensem in the case of a male pensioner, and Rupees 10 in the case of a female pensioner, will be continued. When the sum or share of sum continuable in special cases is less than Rupees 15 or Rupees 10, as the case may be, such sums or share of sums will be commuted. The grant of widows' compassionate allowances is to be restricted in future to widows registering themselves under certain conditions. The whole of the Carnatic stipendiaries are mustered and paid by an officer called the Government Agent and Paymaster of Carnatic Stipends. It is the duty of this officer to report

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merits. We must observe that Dr. Balfour's remarks do not show a correct understanding of the new Carnatic rules. He seems to suppose that all Carnatic pensions are necessarily continued to heirs after deducting the supposed amount of the deceased's personal expenses. A reference to our political letter, dated 11th March (No. 2) 1846 in which the rules were first prescribed, will show that the principle of reduction laid down in those rules is only applicable to the main branch of each stipend and not to the portions detached from it for the support of collaterals or dependents. These latter, unless in special cases, ceased entirely on the death of the first grantee and the continuance of Carnatic pensions to heirs depends in all cases on the decision of Government with reference to the nature and extent of the claims of the family generally."

[3] CONTINUATION RULES FOR CARNATIC STIPENDS OF 1855—*Paragraph* 13 *from Government of India letter, No.* 4644, *dated* 8*th September* 1856.—" As regards the near relatives of the late Rajah " of Tanjore " who have been specially described, the Governor-General in Council requests that the following rule be adopted and declared to the grantee as that which will govern the transmission of each pension upon the death of the person upon whom it is now about to be settled, viz., that upon the demise of a stipendiary, if a man, it shall be for the Government of Madras to consider whether any and what descendants or relations of the deceased were supported by the stipend, and to assign to them reduced allowances, not exceeding in the aggregate a moiety of that which was enjoyed by the first recipient. Further that upon the death of any person thus admitted to become a stipendiary, his descendants and relations shall be dealt with in like manner, the whole of them receiving in the aggregate not more than a moiety of the stipend which had been fixed upon him, and that upon the death of any of those to whom this last and farther reduced rate of pension shall be awarded, no claim shall be recognized in his descendants to a continuance of an allowance on any scale whatever; and lastly, that, in the cases of women of the rajah's family to whom stipends may now be granted, it shall be for the Government of Madras to inquire, upon the death of any of them, whether any and what relations of the deceased were supported from the stipend, and to give to such as may be judged worthy of consideration life pensions, the aggregate of which shall not exceed a moiety of that which was accorded to the deceased, but that the transmission shall stop here, and that there shall be no second inheritance of any portion of the stipend."

lapses, and to submit for the consideration of Government distribution rolls of those who claim continuations from the lapsed stipends. A Receiver of Carnatic Property was appointed under India Act XXX of 1858 to administer to the estate of the late Nawab of the Carnatic. He was also to pay persons claiming to be creditors of the late nawabs, under the orders of the Supreme Court, with interest not exceeding six per cent. per annum. For the performance of these duties the Receiver was to receive a commission not exceeding five per cent. upon the value of the property collected by and distributed under the Act; by India Act XXI of 1868 his duties were somewhat extended. From 1858 to 1875 the Receiver realized Rupees 20,29,700, and disbursed, under the orders of the Supreme and High Courts, Rupees 33,37,619. The subsequent transactions have been limited, and the Receiver's functions may, in point of fact, be said now to have ceased. On the 31st March 1884 there were 108 Carnatic pensions of Rupees 50 and upwards paid through the Government Agent's Office, Chepauk. Of these 32 were 1801 stipends the largest of which amounting to Rupees 427 per mensem was drawn by Moomtaz Begum; 8 were stipends to Jagheerdars of whom Azeez-oon-nissa Begum and Aleem-oon-nissa Begum drew the highest stipend under this head, viz., Rupees 298; 22 pensions were paid to members of the Prince of Arcot's family, the principal being Rupees 5,066-10-8 per mensem paid to the Prince of Arcot, Rupees 1,011-4-0 paid to the family of the late Prince Zaheer-ood Dowlah Bahaudur, and Rupees 1,000 paid to Atiat-ool-ally Mahmood-oon-nissa Begum; 22 pensions were paid to the immediate family of the Prince of Arcot, the principal being Rupees 6,805-14-0 paid to Her Highness Nawab Kheir-oon-nissa Begum Sahiba, Rupees 3,850 paid to Azam-oon-nissa Begum Sahiba and Rupees 2,750 paid to Nawab Ahmed-oon-nissa Begum; 13 pensions were paid to chief officers, the highest being Rupees 400 paid to Mahomed Nakee Bakshy-ool-moolk Bahaudur; 5 pensions were paid to widows of chief officers, the highest being Rupees 100 paid to Kamr-oon-nissa Begum; and 4 Yeomiahdars, the highest amount under this head, Rupees 102-1-4, being drawn by Fatimah Begum and by Azeez-oon-nissa Begum. Of the Carnatic stipendiaries paid at out-stations, 2 were paid through the Stipend Pay Office, Vellore; 4 through the Hyderabad Treasury and 1 through the Bagdad Treasury. Of the number of stipendiaries drawing less than Rupees 50 per mensem 127 receive stipends exceeding Rupees 20; 168 between Rupees 10 and Rupees 20; 313 between Rupees 5 and Rupees 10; and 960 less than Rupees 5.

50. Kurnool Pensioners.—On the assumption of the Kurnool territory by the British Government in 1840 as mentioned in the article on Political History (and regarding which may be consulted also the statistical account of Kurnool in Vol. II, App. XII) pensions were granted to the personal family of the ex-Nawab of Kurnool and such of his relatives and dependents as were in receipt of allowances from him and held jagheers resumable at his pleasure. The pensions so granted were all declared by the Government of India to be life-grants and amounted to Rupees 2,22,652 per annum. By the death of most of the recipients, and consequent lapse of their pensions to Government, the total amount of these pensions has been gradually reduced till, at the present date, it stands at Rupees 57,948 drawn by 87 persons. The amount lapsed to Government up to 29th February 1884 was Rupees 1,64,704. In cases where succession or continuance has been permitted, each instance has been dealt with on its merits; proximity to the deceased, the proximity of the latter to the nawab, dependence upon the deceased during his lifetime, ability or inability to earn a livelihood, personal character, &c., have been taken into account in making new assignments, these being always on a reduced scale. On the 1st March 1884 there were 28 Kurnool pensioners drawing pensions of Rupees 50 and upwards. Of these 24 were paid at Kurnool, 3 at Hyderabad, and 1 at Jeddah. Mahomed Davood Khan Bahaudur, the grandson of the last nawab, draws the largest pension. In 1881 he was granted an addition of Rupees 300 per month to his former pension of Rupees 400, the continuance of this additional payment being conditional on his perseverance in the education of his sons by approved means, and on his eventually placing their services at the disposal of Government.

51. Two-lakh Fund Pensioners.—A sketch of the past and present relations with Mysore has already been given in the section on Relations with Neighbouring

States. In article 1 of the treaty made in 1799 "for effecting a settlement of the dominions of the late Tippoo Sultan"—commonly called the Partition Treaty of Mysore—the East India Company agreed to "provide effectually, out of the revenues of the districts assigned to it, for the suitable maintenance of the whole of the families of the late Hyder Ally and of the late Tippoo Sultan, and to apply to this purpose, with the reservation hereinafter stated, an annual sum of not less than two lakhs of star pagodas" or seven lakhs of rupees. The reservation is contained in article 6, viz., "The East India Company shall be at liberty to make such deductions from time to time from the sums allotted by the first article for the maintenance of the families of Hyder and Tippoo, as may be proper in consequence of the decease of any member of the said families," and wholly to limit or suspend payment where the families or any member of them threatened the public peace. By certain separate articles it was agreed that the Company should not be accountable to the Nizam "to whatever amount the stipends appropriated to the maintenance of the sons, relations and dependents of Hyder Ally and Tippoo shall hereafter be diminished in consequence of any one of the stipulations of the Treaty of Mysore." It will be seen that the dependents of the families of Hyder and Tippoo, as well as the families themselves, are included. Up to the year 1807 the whole of the 7,00,000 rupees was disbursed in Vellore where the family were imprisoned; but as the major portion of the Mysore family was then deported to Calcutta in consequence of the suspected complicity of Tippoo's sons with the mutiny at Vellore in July 1806, only Rupees 2,13,862 remained to be paid in this Presidency, the balance Rupees 4,86,138 being thereafter payable in Bengal. In 1862, on the return to India of a son and grandson of Tippoo who had proceeded to England personally to urge the claims of the immediate descendants of the late sultan, a sum of 40½ lakhs was capitalised for the benefit of the Mysore princes at Calcutta. At Madras the disbursements at the Political Office, Vellore, where the bulk of the pensioners live, have diminished to about 13,000 rupees a year; and the control of stipends already existing, including the grant or refusal of pensions in case of lapse, has been left since 1878 to this Government, as is the case with the old Carnatic stipends. The Government of India still retains the power to grant pensions where there has been no corresponding lapse. A few stipendiaries have removed from Vellore to Madras, Cuddapah, and Mysore, and draw their pensions at those places. With regard to the principle regulating the succession to these pensions and their continuance, there is no fixed rule. In 1835 Government ruled that the pensions enumerated in the lists of 1835 should not be conferred by renewal on an indefinite number of persons for an unlimited period and so perpetuated, and that "as to the portion of pensions which it has been usual to reduce on the death of the head of the family the Officer Commanding Vellore is referred to the Government Agent at Chepauk, who will communicate to him the rules in practice observed in respect of the pensions paid at his office." The military officers, who had the management of the Stipend office until 1860, in most cases recommended two-thirds of a deceased stipendiary's pension, and Government sanctioned either that amount or half the lapsed pension. As regards distribution of a pension among the members of a family, the principle has been to allow one share to a male and one-half share to a female according to Carnatic usage, and on the death of any of the sharers a corresponding deduction has been made in the full amount of the pension. When the Government of India transferred the pensions in 1878, they made the following conditions: (*a*) that the expenditure then obtaining was not exceeded; (*b*) that existing allowances and stipends which had lapsed should be renewed, if renewed at all, only as compassionate grants, and that the fresh grant should never exceed three-fourths of the lapsed amount; (*c*) that when any allowance to a family or individual was reduced to a monthly aggregate of Rupees 5, it should be capitalised and paid off; (*d*) that an annual report should be submitted to the Government of India through the Foreign Department, showing the reductions made in the course of the preceding year and the total amount payable at the close. There are at present 108 pensioners under this head in Vellore, drawing an aggregate pension of Rupees 10,860 annually, with a clothing allowance of Rupees 1,058 per annum, the latter sum being enjoyed only by certain of the pensioners. Under this head is also paid a sum of Rupees 1,200 per annum for the ceremonies over the tombs of Badshah Begum, the principal wife of Tippoo Sultan, and Fatima Khanam Begum his father's

widow; and Rupees 51 for the similar religious ceremonies known as the Ashar Fateahs. The highest pension, Rs. 105, is drawn by Syed Ghoolam Ahmed Khan, grandson of Tippoo Sultan's sister.

52. MYSORE PENSIONERS.—The Mysore pensioners also are descendants of the officers or old Circar servants of Tippoo's court. They are so called in contradistinction to the Two-lakh Fund pensioners, as their pensions are chargeable to the Mysore State. The Seringapatam treaty provided for this distinction. There are at present 17 pensioners under this head, drawing an aggregate pension of Rupees 7,184-11-0 annually. A sum of Rupees 276 per annum is allowed for the performance of Fateah ceremonies over the tomb of Ghoolam Ally Sudder, one of the principal officers of Tippoo's court.

53. GOOMSOOR PENSIONERS.—These pensioners were the son, Varadaraz Bhoonj, and other relatives of the Goomsoor Rajah or Zemindar, who were deported in consequence of the disturbances in Goomsoor and elsewhere in the Ganjam district in 1835. They were sent to Vellore in 1837, and were then 20 in number. They have quite recently all lapsed by death.

54. PALCONDAH PENSIONERS.—In 1833 the ex-Zemindar of Palcondah, Koormaraz, with his two brothers Vijiaram Raz and Neeladry Raz, their mothers, step-mothers, and other relatives, 19 in all, were removed as State prisoners in consequence of rebellion. Koormaraz and his mother, Pedda Jaggiah, were confined in the hill fortress of Gooty, and Vijiaram and the others at Vellore in one of the mahauls in the fort. Koormaraz died at Gooty in 1834, and Neeladry Raz at Vellore in 1844. Vijiaram Raz then became the principal member of the family, and he still survives. The personal allowance first granted to him was Rupees 17-8-0 per mensem, which was gradually increased as casualties occurred till it rose to Rupees 110 a month. In 1869 the Governor Lord Napier visited Vellore and relieved him from surveillance, and permitted him to reside at pleasure at any place south of the Kistna river. He has not availed himself of this privilege except to pay occasional visits to Madras. He and his family and dependents are the only persons now allowed to reside in the Vellore mahauls. The Hyder Mahaul is vacant, and the others are used for public offices and schools. Vijiaram Raz is under no surveillance except that he applies for leave when he desires to leave Vellore. Subsequent to 1869 the Government of India raised his allowance to Rupees 150, and again in 1879 to Rupees 250 a month. He has on several occasions received grants for marriage and funeral ceremonies. The members of the family who now survive are Vijiaram Raz, his step-mother Soobadriah, and his step-sister Chendrammaul. He adopted a son in January 1879, and the adoption has been recognized by Government. The pensions of the whole of this family amount now to Rupees 3,504 per annum.

55. CUTTACK PENSIONERS.—Rajah Pillay, alias Lutchmee Narrain Bhoonj, pretending to be the son of the Goomsoor Rajah, raised a rebellion in 1846. He was captured on the Bengal frontier and deported to Vellore in 1856 along with his wife Roockee Devy, his child Ramchendra Bhoonj, and two male relatives, Ragoonath Bhoonj and Balabhadra Sanooth. He was directed to be kept in easy surveillance at Vellore, and was allowed a subsistence allowance of one rupee per diem for himself and his family, which allowance was soon after raised to Rupees 1-8-0 per diem. Lutchmee Narrain did not long survive his arrival, and died in 1857. Soon after followed the death of Ragoonath Bhoonj, said to be his uncle. Government then settled fixed allowances on the surviving relatives of Lutchmee Narrain. In 1877 these were by order of Government released and permitted to return to their native country, Cuttack; but as they did not feel inclined to proceed there, they were allowed to live in the town of Vellore with an extra allowance of 3 rupees each as compensation for house-rent consequent on their being deprived of residence in the mahauls. Since then Balabhadra Sanooth has died, and the only two surviving members of Lutchmee Narrain's family are Roockee Devy, the widow, and Ramchendra Bhoonj, the son. The aggregate yearly sum paid to these pensioners is Rupees 276.

56. MADYARJOON PENSIONS.—The Madyarjoon pensioners are the descendants and dependents of Prataup Sing, son of Amar Sing, Rajah of Tanjore, who

was dethroned by the British Government in favor of Sarbhojee in 1798.[4] Madyarjoon is a village 7 miles from Combaconam and 30 miles from Tanjore, and the family were there removed; and hence the name. The chief of the pensioners is now Yeckojee, the adoptive grandson of Amar Sing, to whom no pension was assigned till the beginning of 1873, when, on the recommendation of the Madras Government, a monthly stipend of Rupees 1,000 was sanctioned for life only. The pensions to the other members of the Madyarjoon family were sanctioned by the Government of India in 1849. These pensions are administered and paid in the Tanjore district.

57. TANJORE RAJ PENSIONS.—Subsequent to the death of Sivajee in 1855 and the annexation of the Tanjore raj to the British dominions, Mr. H. Forbes and after him Mr. H. D. Phillips were appointed commissioners to settle its affairs and assign pensions to the several members of the late Rajah's family and dependents. The pensions now drawn were sanctioned by Government in 1859. Among the Tanjore raj pensioners the principal personages now living are the following:— M. Camaucshy Bye Sahib, M. Aparoopamba Bye Sahib, M. Anasamba Bye Sahib, M. Chimmamba Bye Sahib, M. Gowramba Bye Sahib, M. Jijayiamba Bye Sahib, M. Ramacoomauramba Bye Sahib, M. Syamba Bye Sahib, M. Dipamba Bye Sahib, M. Oomanba Bye Sahib, and M. Yeswantiamba Bye Sahib who are widows of the late Rajah Sivajee; Sakhwar Bye Ammany Raje Sahib, eldest sister of the late

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[4] SKETCH HISTORY OF POLITICAL RELATIONS WITH MAHRATTA RAJ OF TANJORE—*Raj founded by Yeckojee.*—In the tenth century Tanjore was the seat of the Chola kingdom, and continued so during that kingdom's decadence. In the early part of the sixteenth century Tanjore became a province of Vijianugger by conquest, but after the fall of that empire shortly afterwards it attained a virtual independence under the still remaining viceroys of the late empire who ruled with the title of Naicks. This state of things lasted till the middle of the seventeenth century. At that date Tanjore was seized by the Naick ruler of the adjoining principality of Madura. This Hindoo Rajah was dispossessed of his territories by Vencajee, half-brother of Sivajee, the founder of the Mahratta Sattara power. Yeckojee transmitted the state to his posterity. (2) *French war.*—During the early wars between the English and French, the power in Tanjore was held by Prataup Sing, who came to the throne in 1740. Tanjore had never been actually incorporated with the Carnatic, but it had from time to time paid tribute when hard pressed by the nawab. In 1762, when, in consequence of the war with the French, the finances of the Nawab of the Carnatic were at a low ebb, the nawab claimed from Tanjore large arrears of tribute, and applied to the English for assistance to reduce the rajah. Military aid was refused, but through the mediation of the Madras Government the rajah agreed to pay to the nawab twenty-two lakhs of rupees as arrears and thereafter a fixed tribute of four lakhs annually. (3) *First English hostilities with Tanjore.*—In 1771 the Rajah Toolsajee, son of Prataup Sing, prepared an expedition against the Poligar of Ramnaud, a dependent of the Carnatic, to recover some districts which he said had been wrested from him in 1763. Mediation failed, and at the request of the nawab a force was sent to punish the rajah. During the hostilities however the son of the nawab concluded a treaty of peace with the rajah without the knowledge or consent of the English, by which the rajah bound himself to pay eight lakhs of arrears of tribute and thirty-two and-a-half lakhs as the expenses of the expedition, and to furnish the nawab with troops in time of war. The clandestine conclusion of this engagement was condemned by the Madras Government; and as the rajah failed to perform its terms, renewal of hostilities was threatened unless the rajah gave up the fort of Vallam and the districts of Coilady and Yelangaud. (4) *Second hostilities.*—The Rajah of Tanjore again fell into arrears in 1773, and was believed to be intriguing with Hyder Ally and the Mahrattas for a supply of troops. His position in the country, to the defences of which he contributed nothing, was felt to be a source of constant danger, and it was therefore determined to take the opportunity, while enforcing the nawab's claims, entirely to reduce him. Tanjore was taken on 17th September 1773, and the rajah and his family were made prisoners in the fort. The Court of Directors disapproved of this expedition against Tanjore and directed the restoration of the rajah. In consequence of these orders and notwithstanding the remonstrances of the Nawab of the Carnatic, the rajah was restored on 11th April 1776, and a treaty was concluded with him, by which he bound himself to do nothing contrary to the Company's interests, to receive English troops for the protection of his country, to contribute four lakhs of pagodas towards military expenses, and to grant to the Company two hundred and seventy-seven villages. (5) *Treaties between* 1787 *and* 1792.—Toolsajee died in 1787 and was succeeded by his half-brother, Amar Sing, with whom a new treaty was concluded on the same principles as that which was concluded in the same year with the Nawab of the Carnatic, viz., that the rajah should contribute towards the peace establishment two-fifths of his revenues with territorial security for punctual payment; that in time of war the contribution should be doubled; that he should pay a further sum of three lakhs of pagodas a year for the liquidation of his debts to the nawab and to his private creditors; and that he should pay to the British Government the tribute ceded to them by the Nawab of the Carnatic. After the close of the war with Tippoo another treaty was made with Amar Sing, on 12th July 1792, almost in the same terms as the treaty of the same date concluded with the Nawab of the Carnatic. (6) *Assumption of the raj by the English.*—Before his death Toolsajee had adopted Sarbhojee as his son, and committed him to the care of Amar Sing. The adoption was disputed on three grounds—the imbecile state of Toolsajee's mind, the age of the boy, and his being an only son—circumstances which were held to invalidate the adoption. Consequently the adoption was cancelled, and Amar Sing was recognized as successor to the state. Sarbhojee however appealed, and as the best legal authorities were, on further enquiry, found to be in favour of his claim, Amar Sing was deposed and Sarbhojee acknowledged in his stead. On his accession in 1798 a treaty was made with him, by which he resigned the administration into the hands of the British Government and received a provision of one lakh of pagodas and one-fifth of the net revenues. A pension of 25,000 pagodas was granted to Amar Sing. The deposed rajah died in 1802. (7) *Extinction of the raj.*—Political relations with Sarbhojee continued unchanged during his lifetime. By the treaty of 1799 no sovereign authority was left to him except in the fort of Tanjore and its immediate vicinity, subject to the control of the British Government. Sarbhojee died in 1832 and was succeeded by his only son, Sivajee, on whose death in 1855 without male heirs, direct or collateral, the titular dignity became extinct. (8) *Pensions.*—For subsequent account of the Tanjore family, see the text; and regarding the recent administrative arrangements made by this Government, see the statistical notice of Tanjore district in Vol. II, App. XII. (9) *Detached portions of the original raj.*—Besides the territory ceded under the treaty of 1799 and Devicottah, which was ceded by Prataup Sing, there are several British districts which originally formed part of the Tanjore State. Negapatam and Nagore, which were taken from the Portuguese by the Dutch in 1660, but were originally part of the Mahratta Rajah's possessions, were annexed to the British dominions in 1781. Tranquebar, which was purchased by the Danes from one of the Naick Rajahs, was ceded by them to the British in 1845. The French settlement of Caricaul was purchased from Tanjore in 1739.

rajah; V. Ry. Sakharam Row Hambire Mohite Sahib who married first the late Princess's elder sister, and after her death the late princess; V. Ry. Prataupa Roodramane Row Ingle, nephew of the late rajah; and Sakhwar Bye, daughter of Tookojee, a descendant of a collateral branch of the rajah's family. The Princess of Tanjore, daughter of Sivajee, lately deceased, drew Rupees 3,000 per mensem. Eleven of Sivajee's widows draw about Rupees 800 per mensem each. The late Princess' husband Succaram Sahib, styled prince consort, draws a special allowance of Rupees 683 per mensem. There are besides the ordinary pensioners however a number of other relations of the Rajah and his servants and dependents in the several departments called "Dowlat Pamloke" (court establishment), "Huzoor Pamloke" (civil establishment), "Lashcar Pattak" (army division), &c. Among them the highest pension drawn amounts to Rupees 150 and the lowest to Annas 12. In the case of the first twelve pensioners mentioned above and that of the natural sons and daughters of the late Rajah the pensions are inheritable for two generations. In the case of the rest the pensions will cease with their lives. The pensions are administered and paid in the Tanjore district.

58. CANDIAN PENSIONS.—Candian pensioners are the descendants of two families which successively occupied the throne of Ceylon. See the history of past political relations in the article on Relations with Neighbouring Provinces. The widow of a brother-in-law of the last King but one of Candy removed herself voluntarily to Caricaul. In 1815 after the English had annexed Candy, the deposed King Vicrama Simha, his mother, his four wives, and fifty followers were brought in a sloop of war to Madras and transferred thence to the Vellore fort. They were followed two months later by forty-four relatives and dependents. In the same year another set of forty-four persons connected with the above were brought to the Presidency and sent to Tanjore. The persons deported were at first treated as close State prisoners, but afterwards they were, with the exception of the ex-King, allowed to go at large. They dispersed and settled in Trichinopoly, Madura and elsewhere. The last surviving queen moved to Tanjore from Vellore in 1863. The free quarters in the Vellore Mahaul were an inducement to some to stay there, but in 1871 that concession was withdrawn, and the Mahaul is now unoccupied. At this moment the greater number of the Candian pensioners live in Tanjore. The Candian pensioners are paid at the expense of the Ceylon Government. The Collector of every district where they reside pays them, being in account with the local Government. There are at present 25 pensioners. The highest pension drawn, that of the third ex-Queen of Vicrama Simhaloo Rajah, is Rupees 125; and the lowest is Rupees 2-8-0 a month.

59. WEST COAST MALIKHANAS, &c.—These are explained in the fifth paragraph of the note at foot.[5] The following are the families in Malabar whose members

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[5] SKETCH HISTORY OF POLITICAL RELATIONS WITH THE MALABAR COAST—*Early history of the coast.*—According to native tradition the Malabar Coast was governed by deputies of the King of Choladesh, whose tenure of office lasted twelve years; a thousand years ago or more one of these Viceroys, Cherooma Permaul, defied his superior and established his own power; then Cherooma Permaul became a convert to Mahomedanism, and on his departure for Arabia divided his territories among his principal chiefs, thirteen in number. The account now received is that the Permauls were rulers of Chera, having limited authority over a number of great vassals, of whom the families of the Travancore Maharajah, the Zamorin Maharajah Bahaudur, the Valavanaud Rajah, and the Palghaut Rajah remain down to the present day. According to this account the Permauls instead of being rulers under the Chola king were independent kings acknowledging perhaps in common with the rulers of Chola and Pandya some amount of subordination to the Pallava kings of Canchy (Conjeeveram). In the course of the onslaughts by the Western Chalookya and Rashtracoota dynasties on the Pallavas of Canchy the Chera rulers seem to have been detached from the confederacy of the Tamul kings of the south and to have become tributary directly first to the Western Chalookya and subsequently to the Rashtracoota kings of Carnata. Then mainly it is believed through the exertions of the Zamorin family this yoke was finally thrown off. These proceedings seem to have added greatly to the power and influence of the Zamorins, and it was probably owing to this increase of influence of the Zamorins that the last of the rulers of Chera, Cherooma Permaul, sought refuge in the Mahomedan religion and in flight to Arabia. This event may be almost certainly placed in the year 825 A.D., the 25th August of that year being the initial day of the Collam era of the Western Coast. The popular tradition is, as above-mentioned, that the Permaul before setting out divided his dominions among his vassals, and in this way arose the many petty states which the British found on acquiring the country in 1792. The fact seems to have been that when the Permaul set sail much of the country had for a long time past been broken up into petty states all owing him allegiance, and that at his departure two more petty states arose; namely Colatoonaud, the country of the Northern Colattiries, who seem to have held originally nearly the whole of North Malabar, and Cochin. The first Chief of Cochin was probably the Permaul's legal heir, that is, the son of his sister by a Brahmin father, and as such he became the ruler of the petty states in the middle of the Malayaly country. The first Chief of Colatoonaud, so tradition runs, was the Permaul's own son by a Cshatriya wife. How the relationship between Colatoonaud and Travancore arose is not known, but the Permaul ruler's wife probably belonged to the same stock as the Travancore family. This relationship continues to be recognised to the present day; indeed the Travancore family has many times been on the point of extinction for lack of heirs, and adoptions invariably take place from one of the branches of the Colatoonaud family. The last such adoption occurred in the present century, and another such adoption will most probably have to take place before long. From the date of the Permaul's departure the Zamorins in a continuous

are Malikhana holders. In the Calicut or Nediyirippoo family there are at present nine Malikhana holders, the chief being the Zamorin of Calicut whose malikhana allowance amounts to Rupees 69,663-4-0 per annum, and the Yeralpaud or second Rajah whose allowance is Rupees 15,000. The Chiracal or Colattiry family has eight holders, the largest being Rajah Rajah Vurmah Rajah whose allowance is Rupees 12,475-0-2. The Cadatnaud or Porlattiry family has five holders, the largest being Porlattiry Mana Vurmah Valiya Rajah whose allowance is Rupees 13,801. The largest holder in the Cooroombranaud or Cooroombiyattiry family, which has six malikhana holders, is Rama Mangalam Covilagam Veera Vurmah Rajah whose allowance is Rupees 4,000. The Cottayam family has five holders, the largest being Padinyare Covilagam Lutchmee Ranee whose allowance is Rupees 1,750. The Beypore family has nine holders, the largest being Kerala Vurmah Valiya Rajah, whose allowance is Rupees 1,725-14-4. The Parapnaud family has two holders of whom Valoo Poodiya Covilagam Rajah Rajah Vurmah draws an allowance of

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manner extended their influence by the conquest or absorption of minor petty states. They encouraged commerce and patronised Arab settlers, and Calicut prior to the Portuguese arrival in 1498 had become a great entrepôt of the trade between East and West, and the Zamorins had become the rulers of nearly the whole of the Malayaly country. This authority was recognised every twelve years at a great feast which was held at the temple of Tiroonavaury in the Ponnany Talook of Malabar. The Zamorin on such occasions used to take his stand on a plateau of laterite rock fringing a level plain crowded with his armed followers. A narrow and perfectly straight passage half a mile long protected by barricades two spears' length apart led from the temple to the Zamorin's post. It was the custom for bands of 'Chauvers' (people who have elected to die) to attempt to force this passage past the spearmen lining the barricades, and to cut down the Zamorin who awaited them. The last such festival was held in 1743. With the advent of the Portuguese came great changes, for the Mahomedan trade was ruined, and the Zamorins temporarily lost influence, the Portuguese favoring the Cochin family to the south and the Colattiry family to the north of Calicut. But the Zamorins continued their encroachments on their neighbours; they took territory from Cochin and from the Valavanaud Chief, and shortly before Hyder's descent into Malabar in 1766 they had penetrated through the territory of the Palghaut Chief and were threatening Cochin. They seemed in fact very likely to become as paramount in the north of the Malayaly country as Travancore, with the help of the Flemish General D'Lanoy, was about the same time becoming in the south. But the Mysorean invasion put a stop to these schemes of conquest, and when the British assumed charge of the country in 1792 they found it parcelled out into numerous little states all possessing more or less independence of the Colattiry family in Chiracal Talook, the Zamorin family at Calicut, the Valavanaud family in Valavanaud Talook, the Palghaut family in Palghaut Talook, and the Cochin State. These petty principalities were (*a*) Colatoonaud proper, (*b*) Randatarra, (*c*) Cannanore, (*d*) Iroovalinaud, (*e*) Coorangote, (*f*) Cottayam with Wynaud and Tambracherry, (*g*) Cadatnaud, (*h*) Payoormalla, (*i*) Cooroombranaud, (*j*) Pynaud, Polanaud, Ramnaud, Cheranaud, Yernaud, Valavanaud (a portion), Nedoonganaud, Nedoowuttam, Catnaud, and Chowghaut under the Zamorin, (*k*) Parpanaud, (*l*) Poolavoy, (*m*) Valavanaud (a portion) under the Valavanaud or Vellatiry Rajah, (*n*) Kavalpara, (*o*) Vadamalapooram and Temmalapooram under the Palghaut Rajah and Vettatnaud. (2) *Rise of English influence.*—About the year 1664 the English began to trade in the Zamorin's dominions, and in 1708 they obtained a grant of the fort of Tellicherry in the north from a prince of the Colattiry family, the limits of which they soon extended southwards by conquest from the Nayar of Coorangote. In 1719 they received from the Nayar of Coorangote the right of exclusive trade in pepper. A similar privilege was obtained in 1722 from the Rajah of Colatoonaud, in 1725 from the Rajah of Cadatnaud, and in 1759 from the Rajah of Cottayam. The territorial possessions of the English were extended in 1734 by the acquisition of the island of Dharmapatam and the fort of Madakara from the Rajahs of Colatoonaud, and in 1749 the whole island of Madakara was obtained, with power to administer justice therein. So rapid was the progress of British influence that the English soon became entitled to exclusive advantages in purchasing the valuable products of the greater part of the Malabar country, and in 1760 they obtained from the Rajah of Colatoonaud the privilege of collecting customs duties within their own territories in consideration of a fixed quit-rent of 21,000 silver fanams, or Rupees 4,200 a year. They also obtained the mortgage of Randatarra in payment of loans which the Rajah had contracted. The grant of Randatarra was confirmed by a subsequent agreement on 23rd March 1765, by which time the debt had not been paid off, and again on 16th May of the same year the rents to be collected from the district were fixed, and the Rajah of Colatoonaud promised to be and remain faithful to the English and to assist them when required with 500 Nayars. (3) *Hyder Ally and Tippoo.*—The Zamorin's spirit of conquest however provoked the invasion of Hyder Ally, who, in 1766, reduced the whole country from Chiracal to Cochin. The Chiefs of Cochin, Coorangote, and Randatarra were allowed to retain their possessions, but the others were driven out and the management of their states was entrusted to Ally Rajah, the Moplah Chief of Cannanore. During the war which broke out between the British Government and Hyder Ally in 1768, the Malabar Chiefs who had taken refuge in Travancore and the British territories reinstated themselves and held possession till 1774, when the southern Rajahs were again expelled. In the northern districts, the Rajah of Cadatnaud submitted to Hyder, and the Rajah of Colatoonaud was confirmed by Hyder in his possessions and in Cottayam and Iroovalinaud on condition of paying tribute. All the Chiefs of Malabar who had assisted the British Government during the war were included in the treaty of peace with Tippoo Sultan in 1784, and Tippoo engaged not to molest them. But this promise was ill kept. For in a few years Tippoo again drove most of the Rajahs and their families from the country by his insane attempt forcibly to convert them to the Mahomedan faith. (4) *Expulsion of Tippoo by English.*—In the war of 1790 the Nayars were encouraged to throw off their dependence on Tippoo Sultan by a promise of protection on condition of their becoming subjects and dependents of the British Government. Accordingly, on the 4th of May 1790, deeds were given to the Rajahs of Colatoonaud, Cadatnaud, and Cottayam, promising to include them in any treaty which the British Government might make with Tippoo. A similar deed was given to the heir-apparent of the Zamorin. After Tippoo's troops were expelled from Coorangote, the Nayar of that principality was allowed to resume possession of his country, but he soon after renewed his connection with the French in the settlement at Mahé and acknowledged his dependence on them. The Moplah Chief of Cannanore sided with Tippoo, but on the reduction of his fort he submitted to the British Government unconditionally. Before the end of the year 1791 Tippoo's army was driven out of the whole of the Malabar country, the Rajahs both in the north and south were restored, and their territories were included in the cessions to the British Government under the treaty of 1792. (5) *Arrangements with chieftains.*—Commissioners were appointed in 1792 to enquire into the condition of the ceded districts, and to establish a suitable system of government and judicial administration. The Rajahs did not at first acquiesce in the assumption of the sovereignty of the country by the British Government, but eventually agreements were concluded with them by which they engaged to submit to the control of the British Government, to pay tribute, and to grant the monopoly of the pepper trade. In December 1792 free trade was proclaimed in all articles except pepper, but the attempt to maintain the pepper monopoly proved a failure and the restrictions on the trade in that article also were removed in the following year, the British Government limiting its claims to a payment in kind of a moiety of the tribute to which, as sovereigns of the country, they were entitled. The first agreements which were made with the Rajahs were temporary and generally concluded for one year only, until the resources of the country could be ascertained, and a fair tribute fixed in proportion to the revenues. Eventually the Rajahs agreed to a joint collection of the revenues by their own officers and those of the British Government. Inland customs were abolished and taxes on exports and imports were levied by the British Government alone. Courts of justice were established, presided over by officers of the British Government, and in a short time the administration of the country was assimilated to that of the other British provinces. Thereafter

Rupees 3,085-11-6. The Valavanaud family has one holder, Vallabha Rajah, whose allowance is Rupees 16,415-1-7. The Palghaut family has seven holders, the largest allowance, Rupees 13,898-4-6, being drawn by Sekhary Vurmah Valiya Rajah. The Kavalpaura Nayar family has one holder, Parvaty Neityar, drawing Rupees 4,567-10-3, and the Payoormalla Nayar families two, the largest being Avinyaut Nayar whose allowance is Rupees 4,058-4-2. The Poolavye Nayar family has one holder, Mannil Yedathil Nayar, drawing Rupees 1,610-9-2; the Palghaut Nayar families three, the largest being Congaut Valiya Nayar with an allowance of Rupees 1,044-13-1; the Iroovalinaud Numbiaur families fourteen, the largest being Kilakkedat Coonjy Sankaran Numbiaur with an allowance of Rupees 1,191-9-6; and the Coorangote Tadam and Poyyapoorath Nayar families fifteen, the largest being Coorangote Tadattil Poodiya Vittil Rayir Nayar whose allowance is Rupees 350-3-2. There are fourteen political pension holders in South Canara, the largest being Ramanta Arasoo whose pension is Rupees 11,788-8-4 per annum.

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engagements were from time to time made with the Chiefs; but they were merely revenue engagements. And finally on 15th September 1806, by which time the whole of the district except Cannanore had been taken under the direct revenue management of the Honorable East India Company's officers, an engagement was entered into with the Zamorin guaranteeing to him and his family a malikhana allowance calculated at the rate of 20 per cent. on the revenues of the year 1800-1 of the territories of which he was in possession at the time of the Mysorean invasion. Similar malikhana allowances were made, though at different rates, to the families of the other chieftains, but no specific engagements were made with them. Regarding these allowances Lord William Bentinck wrote:—"It should be understood that these allowances will be subject to revocation upon proof established of flagrant misbehaviour or rebellious conduct." But in 1857 the Government held "that the allowances are perpetual during good conduct and are not revocable at pleasure." These malikhana holders are not Zemindars in any sense of the term. Their lands are assessed with the ordinary ryotwarry assessments, and are not distinguishable from ordinary ryotwarry lands. (6) *Their law of succession.*—The rule of succession which had been established in these families, as indeed among the Nayars generally (see the remarks in the article on Geography) was most peculiar, being in favour not of the sons of the Rajahs, but of the sons of their sisters who formed temporary connections with Malabar Brahmins called Numbootiries. The children of these sisters were divided into separate branches or houses called Covilagams and succeeded to the chiefship by seniority, the heir-apparent being styled the first Rajah and the others the second, third, and fourth Rajahs. Thus in the family of the Calicut Rajahs, there were five primary ranks, the senior of all being the Zamorin himself. After him came in succession the Yeralpaud or second Rajah, the Moonalpaud or third Rajah, the Nalampaud or Yeddatralpaud or fourth Rajah, and the fifth Rajah styled the Nedootralpaud. Each of these Rajahs, if they lived long enough, succeeded to be Zamorin. The junior Rajahs took their names from the Covilagams or palaces in which they resided till by seniority they reached the fifth rank in the family. At the head of these Covilagams was the Ambaudy or eldest female of the Zamorin line. After her followed the Poodia Covilagam or new palace, the Kizhakka Covilagam or eastern palace, and the Padinyara Covilagam or western palace. Even in the Moplah families, which are Mahomedan, the succession went in the female line. Thus in the Cannanore family, which in addition to their estates on the mainland held possession of the southern Laccadive islands, the chief male representative of the family was called Ally Rajah or Audy Rajah, the prince of the sea. The last of these was succeeded by his niece, whose husband died during the siege of Cannanore in 1790. This lady was succeeded by her daughter and grand-daughter. The last died in October 1861, and was succeeded by her son Ally Rajah, who died in 1870 and was succeeded by his nephew the present Ally Rajah. (7) *Attachment of Cannanore and the Laccadives.*—This family, at first tributary to the Rajahs of Colatoonaud, became independent about the middle of the last century. After Hyder Ally's conquest of Malabar in 1766 the representative of the family became his ally. Cannanore was taken by the British during the war with Tippoo in 1784, an indemnity was exacted from the Beeby and a tribute of one lakh of rupees was imposed upon her. On the conclusion of peace with Tippoo matters reverted to their former position, but when in 1790 war again broke out with Tippoo, the Beeby instigated the Moplahs against the Nayars, the Company's allies. Cannanore was taken by storm, the possessions of the Beeby became the right of the British Government by conquest, and were included in the cessions made by Tippoo. She was however allowed to retain her possessions on condition of paying a moiety of the produce of her country, both on the mainland and in the five islands, amounting in all to Rupees 4,340, and Rupees 10,000 per annum as a similar share of the produce and commercial advantages accruing from the Laccadives. She also executed an agreement in 1793 engaging to submit to the sequestration of the Laccadives if it should be ordered by the British Government. Commissioners were sent to investigate the resources of the islands, the treatment of the islanders by the Beeby, the abuses connected with her monopoly of coir, and similar matters. After a tedious negotiation a provisional agreement was in 1796 signed by the Beeby, subject to ratification by Government, by which she engaged to pay Rupees 15,000 per annum to the British Government, but the rights of Government to the islands under the agreement of 1793 were in no way altered or done away with. Owing to the breaking out of the war with France and other considerations, negotiations for the surrender by the Beeby of her sovereignty of the islands, for the reform of the administration and for the freedom of trade were not completed, and for many years the Laccadive islands remained unnoticed. In 1848 petitions from the islanders complaining of the oppression of the Beeby attracted attention, and a British officer was deputed to report on the subject. The Beeby's resources having been much crippled by the damage caused by a recent storm, she was compelled to ask for a remission of the peshcush which had fallen much into arrears. The request was granted on condition of her introducing the necessary reforms into her administration; but as she declined to do so, the offer of remission was recalled and her lands at Cannanore were attached for arrears of peshcush. In 1854 the Laccadives were sequestrated on a similar account and brought under British management. The island of Minicoy, which the Beeby claimed as her private property, offered open resistance to the authority of Government, and was not finally brought under control till 1858. (8) *Assumption of the Laccadives in* 1875.—The islands were restored to the Beeby shortly before her death in 1861 with a distinct intimation that in the event of any acts of oppression or extortion being proved against her or her agents, Government would sequestrate the islands in order to compel the introduction of good government. During the rule of her son and successor, Ally Rajah, the same maladministration continued. While complaints on his part regarding the evasion by the islanders of the monopoly of coir were frequent, countercharges were brought by them of oppression on the part of the Rajah and his agents in collecting the dues. Enquiries conducted on the spot showed that the Rajah's authority was completely in abeyance in the three principal islands, and that he was powerless to enforce the monopoly. Ally Rajah died in 1870 and was succeeded by Moosa Ally Rajah, the present head of the family; but no improvement took place in the relations between the Rajah and the islanders. At length as there was no hope of any reform in the administration, as the Rajah declined to abolish the monopoly, and as the arrears of peshcush had again accumulated to a large sum, the islands were attached and their administration was assumed by the British Government in 1875. (9) *The Northern Laccadives.*—The inhabitants of the four northern Laccadives revolted in 1785 against the authority of the Cannanore family and sought the protection of Tippoo, who in 1787 allowed the Rajah to annex in lieu of these islands a jagheer out of the territory of the Rajah of Colatoonaud. This jagheer was re-occupied by the Rajah of Colatoonaud in 1791. A claim to compensation for the loss of it was put forward by the Beeby of Cannanore in 1821 and conceded by the Court of Directors. A sum of Rupees 5,250 in the form of a remission of the peshcush is annually paid to the head of the family on this account. These northern islands form part of the Canara District.

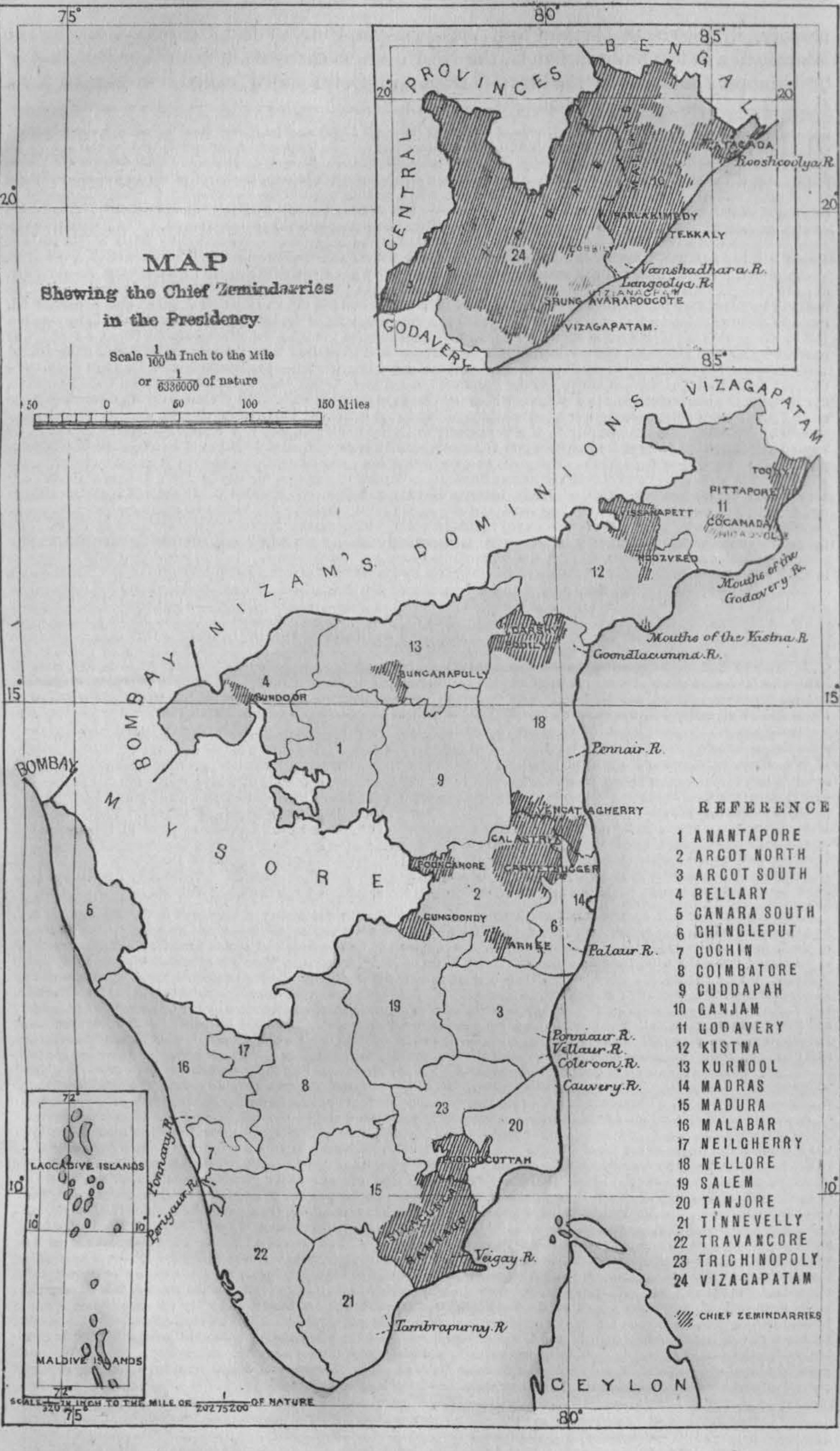
ZEMINDARRIES.

60. Description.—Zemindarry or permanently-settled estates in Madras conform generally to one of two types. They are either the remains of ancient principalities, which the holder cannot sell or encumber beyond his own life interest, the succession being hereditary in the eldest son; or they are creations of British rule, dating from 1802, and subject to the usual Hindoo rule of partition. The former have a political status which may be said to be quite wanting in the case of the latter. The chief zemindarries of the first class are the following, noted in the order of the amount of the yearly peshcush or fixed assessment which they pay:—in the Vizagapatam District, Vizianagram, peshcush, Rupees 4,96,580; in the Nellore District, Vencatagherry, peshcush, Rupees 3,77,085; in the Madura District, Ramnaud, peshcush, Rupees 3,13,998; and Shivagunga, peshcush, Rupees 2,88,317; in the Godavery District, Pittapore, peshcush, Rupees 2,50,009; in the North Arcot District, Carvetnugger, peshcush, Rupees 1,80,494; and Calastry, peshcush, Rupees 1,76,790; in the Godavery District, Nidadvole, peshcush, Rupees 1,19,346; in the Kistna District, Noozveed, peshcush, Rupees 95,443; in the Vizagapatam District, Bobbily, peshcush, Rupees 89,774; in the Ganjam District, Parlakimedy, peshcush, Rupees 87,825; in the Vizagapatam District, Jeypore, peshcush, Rupees 16,000. The accompanying map [1] shows the situation of each of these ancient zemindarries. A brief account, geographical and historical, is given in the foot-notes.[2–13] There are a considerable number of minor zemindarries,

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[1] Spellings authorized by Government occurring in the map showing Chief Zemindarries.*—Anantapur, Arni, Atagadá, Banganapalle, Bobbili, Darsi, Godávari, Gundalakamma, Kálahasti, Kangundi, Kárvetnagar, Lángulya, Nidadavól, Nílgiri, Núzvíd, Pálár, Parlákimedi, Pennér, Periyár, Pithápuram, Podili, Ponnáni, Pudukóta, Punganúr, Ramnad, Rushikulya, Sandúr, Sivaganga, Támbraparni, Tekkali, Tuni, Vaigai, Vamshadhára, Vellár, Venkatagiri.

[2] Sketch Account of the Vizianagram Zemindarry.—The Rajahs in the Northern Circars were at first treated as feudatories, and paid tribute, being expected in return to keep the hill tribes in order. In 1802, however, a permanent settlement was introduced, and the chiefs became zemindars, retaining the management of the land revenue of their estates, but being themselves handed over to the judicial power. In Vizagapatam there are 14 of these zemindars, all of ancient lineage, the most important of whom is the chief, now styled Maharajah of Vizianagram. The head of the house claims descent from Madhavavarma of the Oodayapore family, who led a Rajpoot colony into the Kistna valley in 591 A.D. He is consequently of the Grahilote tribe, belonging to the Sisodiya branch and the Vasishta gotra. According to the traditions of this house Bijeibhoop, one of its members, at a very early period settled in Ajooddhia, the modern Oudh, whence in the year 514 of the Saca era corresponding to 592 A.D. his descendant Madhavavarma emigrated to the Telingana country accompanied by the representatives of the Vasishta, Dhananjaya, Koundinya, Kasyap, and Bharadwaja gotras of his own tribe. His descendants became important Sirdars of the Kootbshahy dynasty of Golcondah. One of these sirdars, called Poosapauty Madhavavarma, and his descendants established themselves between the middle of the seventeenth and eighteenth centuries in Vizianagram. Pedda Vijiaram Raz succeeded his father about the year 1710 and his long reign terminated in 1757. He built the fort at Vijianagram, to which place he removed his capital from Potnore, a few miles to the south. He extended his power over the neighbouring Rajahs until his authority in the Circars was of the first importance. His alliance was sought by the Fowjdar of the Nizam, to whose kingdom Vizianagram appertained; and when Bussy came to take possession of the Circars he joined his forces with that commander in the celebrated attack on Bobbily in 1757, where the Rajah met his death at the hands of assassins. His successor, Ananda Gujapaty Raz, was a man of equal power and authority. He ruled from Chicacole to Rajahmundry and made a treaty with the English as a sovereign power. When Lally, in 1758, summoned Bussy to Pondicherry, Ananda Raz, who was hostile to the French, marched on Vizagapatam, then in the possession of that power, captured it, hauled down the French colours, and hoisted English in their stead. He then with much pertinacity sought the aid of the English both from Madras and from Calcutta, and at the latter place his representations had the effect of securing the co-operation of Clive, who despatched Colonel Forde on the expedition which resulted in the expulsion of the French from the Northern Circars. On Forde's arrival at Vizagapatam in October 1758, he joined his forces with Ananda Raz, and in conjunction with Mr. Andrews, who had been sent to Vizagapatam from Madras to take charge of the factory, settled articles of agreement between the Company and the Rajah to the effect that the Rajah was to pay the expenses of the expedition and was to be put in possession of all the inland country, the Company to possess all the conquered sea-coast from Vizagapatam to Masulipatam, and no treaty for the disposal or restitution, whether of the Rajah's or the English possessions, to be made without the consent of both parties. This treaty being signed, the allies proceeded to action. The decisive battle of Condore was fought on the 7th December and M. Conflans fled to Masulipatam, which surrendered to the joint arms of these allies in April 1759. While this famous siege was progressing, Salaubut Jung, the Nizam of the Deccan, lay encamped forty miles off, awaiting the result of the contest between the French and the English, and when victory declared for the latter, he entered into a treaty with Colonel Forde in which the services of Ananda Gujapaty Raz were duly recognized, if inadequately recompensed. Ananda Raz died soon after and was succeeded by an adopted son, Vijiaram Raz, whose elder brother, Seetharam Raj, became his Diwan. This enterprising but misdirected man governed the whole country from Rajahmundry to Chicacole from 1760 to 1767. The young Rajah's title was acknowledged by the Nizam Salaubut Jung in 1760 at Rajahmundry. He agreed to pay tribute to the Nizam of Rupees 2,90,059-4-0, but owing to the revolution at Hyderabad when Salaubut Jung was deposed by his brother, Nizam Ally, the affairs of this Circar were neglected and Seetharam Raj pursued his career of annexation unchecked. Forde's expedition was made use of by Clive to procure from the Emperor Shah Alum the firmaun for the Northern Circars, dated 12th August 1765, and consequently it was to Ananda Raz that the British owe the cession of these provinces. The firmaun with the subsequent treaties of 1766 and 1768 completed the transfer of the Circars to the British who established their authority over the Poosapauties from the year 1767. They then paid their first tribute of three lakhs to the Chief of Masulipatam, which had remained in our hands since its capture by Forde in 1759. At this time besides the large state of Vizianagram, Jeypore, Palcondah and fifteen other large zemindarries acknowledged Vijiaram Raz as their suzerain, and when Mr. Andrews came up to Vizagapatam as Chief in 1769, Seetharam Raj procured the aid of the Company's troops and quelled a formidable insurrection against his authority which had broken out among the Hill Zemindars. From this time until his retirement from public affairs in 1793, Seetharam Raj continued a career of authoritative management in the affairs of the Poosapauty house. His active energies extended to Madras, where the Presidency and Council contributed to promote his interest and gratify his ambition. His conduct was


MAP
Showing the Chief Zemindarries
in the Presidency
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
50 0 50 100 150 Miles
CENTRAL PROVINCES
BENGAL
GODAVERY
KALLIKOTE
Rooshcoolya R.
PARLAKIMEDY
TEKKALY
BOBBILI
Vamshadhara R.
Langoolya R.
VIZIANAGRAM
SRUNGAVARAPOOCOTE
VIZAGAPATAM.
NIZAM'S DOMINIONS
VIZAGAPATAM
PITTAPORE
COCANADA
VUYYOOR
NOOZVEED
Mouths of the Godavery R.
Mouths of the Kistna R.
Goondlacumma R.
DARSHY
KARGULL
BUNGANAPULLY
SUNDOOR
BOMBAY
MYSORE
Pennair R.
VENCATAGHERRY
CALASTRY
CARVETINUGGER
POONGANORE
GUNGOONDY
ARNEE
Palaur R.
Ponniaur R.
Vellaur R.
Coleroon R.
Cauvery R.
POODOOCUTTAH
SIVAGUNGA
RAMNAD
Veigay R.
Ponnany R.
Periyaur R.
Tambrapurny R.
LACCADIVE ISLANDS
MALDIVE ISLANDS
CEYLON
SCALE 1/320 IN INCH TO THE MILE OR 1/20275200 OF NATURE
REFERENCE
1 ANANTAPORE
2 ARCOT NORTH
3 ARCOT SOUTH
4 BELLARY
5 CANARA SOUTH
6 CHINGLEPUT
7 COCHIN
8 COIMBATORE
9 CUDDAPAH
10 GANJAM
11 GODAVERY
12 KISTNA
13 KURNOOL
14 MADRAS
15 MADURA
16 MALABAR
17 NEILGHERRY
18 NELLORE
19 SALEM
20 TANJORE
21 TINNEVELLY
22 TRAVANCORE
23 TRICHINOPOLY
24 VIZAGAPATAM
CHIEF ZEMINDARRIES

namely, fifty-two in Ganjam and Vizagapatam, four in the Godavery, six in the Kistna, five in the Nellore, five in the North Arcot districts, one in Kurnool, six in Trichinopoly, eleven in Madura, fourteen in Coimbatore (called Poligar estates),

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animadverted on by Mr. Dundas in the House of Commons (in April 1782) and however much of obloquy he obtained, it is certain that the Vizianagram house retained its high position only so long as Seetharam Raj was at the helm. He retired in 1793 and in 1794 his brother Vijiaram Raz was betrayed into a show of contumacy. The Company's troops fought him at Padmanabham on the 10th July, and the old Rajah had his palanquin placed in the van of the fight and fell at the first discharge. The death of Vijiaram Raz marks a turning point in the fortunes of the family. Subject to occasional vicissitudes, the importance of the Poosapauties had steadily increased throughout the century. Their own dominions and those of their feudatories covered an area conterminous with the present district. Their tenure of this extensive country was that of a tributary prince. The head of the house was honoured by the titles of Mirzah and Manea Sultan, and the Honourable Company accorded him a royal salute of 19 guns when he visited their Chief at Vizagapatam. These titles and the salute reduced in 1848 to 13 guns are still enjoyed as hereditary honours, for, although the permanent settlement altered the tenure by which the present zemindarry is held, it did not deprive the house of its hereditary honours. The Government in 1862 recognised his right to the title of Rajah and admitted his claim to higher distinctions than are usually accorded to zemindars. After the battle of Padmanabham, his young son fled to the protection of the hill zemindars who were disposed to raise the standard of revolt in his favor, but this was averted by timely measures, and the boy known as Narrain Baboo received a kaul from Lord Hobart, Governor of Madras, at the end of 1794. The dominion of the Poosapauties was then curtailed to its present size. The hill chiefs were released from their position subordinate to the Poosapauties, and other tracts were taken from them and were added to the Havelly, the name given to the demesne or household lands of the sovereign. The Vizianagram zemindarry is now about 3,000 square miles in extent, and contains, according to the census of 1881, 1,252 villages with 185,904 houses and 844,168 inhabitants. According to the permanent settlement the peshcush was fixed at Rupees 5,00,000. The zemindarry is divided for revenue purposes into 11 talooks, and the system of administration is based on the Government practice in the neighbouring talooks. There are about 30,000 tenants and 10,000 sub-tenants. The area under plough is about 275,000 acres; the rates of rent vary from Rupees 5 to Rupees 10 per acre for wet land and Rupees 2 Annas 8 per acre for dry land. The population is almost entirely Hindoo and Teloogoo speaking. The towns are Vizianagram and Bimlipatam and there are several large and thriving agricultural villages. The estate is well supplied with roads, schools and hospitals, in which matters the Vizianagram Raj will compare favorably with any part of India. This flourishing condition of things had its origin in the arrangement made by Narrain Baboo, who resided for the greater part of his long rule in Benares, and left the estates in the hands of Government. He died heavily in debt at Benares in 1845, and his successor continued the arrangement made by his father for seven years, taking over the management in 1852. This Rajah, Vijiaram Raz, proved himself worthy of his high place. An accomplished and liberal man, he fulfilled the duties of his position in a manner rarely equalled by an Indian prince. In 1863 he was nominated a Member of the Legislative Council of India. In 1864 he received, in addition to his hereditary titles, that of Maharajah, to which the prefix of His Highness was subsequently added. He was decorated K.C.S.I., and in 1877 at the Imperial Proclamation his personal salute was fixed at 13 guns. His name was enrolled in the list of the Chiefs of India, whose visits are returned once a year by the Viceroy. He died in 1878 and was succeeded by his son, Ananda Raz, born in 1850, who is now 34 years of age. In 1881 the title of Maharajah was conferred upon him as a personal distinction and his title to the ancient salute of 13 guns mentioned above was fully recognised. In 1882 he was made a Fellow of the Madras University and was gazetted Member of the Madras Legislative Council in March 1884.

[3] SKETCH ACCOUNT OF THE VENCATAGHERRY ZEMINDARRY.—This is a zemindarry estate in Nellore District. The family began with one Chevy Reddy, who became possessed of a large fortune by a lucky accident in the fourteenth century. His descendants attached themselves at first to the king of Warangal, but they grew in importance till they equalled him in power and became independent chieftains. The estate has an area of 2,117½ square miles, and includes two talooks, Vencatagherry and Poloor in the extreme south of the Nellore District, and two, Darshy and Podily in the extreme north, besides large tracts in the Government talooks of Goodoor, Canigherry, and Ongole. The number of villages (1881) is 726, and of inhabitants 300,865, dwelling in 61,507 houses. The estate pays to Government a peshcush or permanent revenue of Rupees 3,74,347. The present zemindar, whose father (a Companion of the Star of India) is still alive, claims to be the twenty-eighth in lineal descent from the founder of the family. In 1751 his ancestor assisted the English against Hyder Ally, who destroyed the town in retaliation. The family has always been distinguished for its loyalty to the British. The zemindar is the chief of a large caste, the Velamas.

[4] SKETCH ACCOUNT OF THE RAMNAUD ZEMINDARRY.—The chief or Setooputty of Ramnaud in the Madura District, was in ancient times a person of much note. The founder of the ancient Marava dynasty of Setooputties or guardians of the Isthmus and sacred temple of Rameswaram, was supposed to be appointed by Rama himself. The Shetooputties of Ramnaud were subjects of the Pandyan and Naick kings of Madura, but they were the chiefs of all the subordinate Poligars. Under the English the Shetooputties became mere Zemindars, with a permanent settlement. The zemindarry lies between lat. 9° 3′ and 10° 2′ N. and long. 78° and 79° 24′ E., being bounded on the north by Shivagunga, Poodoocottah, and Tanjore, on the east and south by the sea, on the south by Tinnevelly, and on the west by the Shivagunga Zemindarry and the Tiroomungalam Talook of the Madura District, and by Tinnevelly. The chief is the head of the Maravar caste. Poogalore, now only a small hamlet on the Madura road, and 10 miles north-west of Ramnaud, was formerly the family seat; but about the commencement of the eighteenth century, they moved their capital to the present town and fortified it. The fortifications (now destroyed) consisted of a wall 27 feet high and 5 feet thick, surrounded by a ditch, now filled with rubbish. In the centre of the fort is the palace. In 1769, the famous Jesuit, John de Britto, was put to death by the Rajah of Ramnaud. The treaty of 1792 provided that the Poligars dependent on the Soobahdarry or Governorship of Arcot should be placed under the British Government. On this occasion Colonel Martyn was sent with a small force to occupy Ramnaud and to arrange for the punctual collection of the revenue due from the estate. In 1795 the zemindar was deposed for rebellion, and sent as a prisoner to Madras. In 1803 the Company made over Ramnaud to the elder sister of the deposed zemindar, the assessment being fixed permanently in the proportion of two-thirds of the gross revenue. The estate is now in the hands of the Court of Wards, the zemindar being a minor; he comes of age in 1889. The Veigay river, which waters Madura, supplies the large tank at Ramnaud capable of irrigating over 6,000 acres of land. The total number of tanks in the zemindarry is 1,767. The population was returned by the Census of 1881 at 476,268 persons; the area is 2,112 square miles, the total revenue of fusly 1291 was Rupees 7,41,744, and the peshcush or tribute payable to the British Government is fixed at Rupees 3,14,000. The estate was for a long time notorious for neglected administration and backward agriculture, forming a marked contrast to those portions of the district held under the ryotwarry tenure. During the lifetime of the late Zemindar, Mootooramalingam Shetooputty, the estate was encumbered with heavy debts incurred chiefly owing to long litigation. At his request the Government intervened and advanced him a loan of Rupees 14,22,830 on the security of the estate to pay off the debts, the estate having in the meantime been attached and taken under Government management on account of arrears of peshcush. On the death of the Zemindar in 1873, the Court of Wards assumed the management which still continues. The estate has, under the Court of Wards' management, attained a satisfactory improvement in every way. The Government granted a loan of 10 lakhs of rupees to pay the debts in 1873, and a further loan of 2 lakhs in 1878 for the repair of irrigation works damaged by floods. This loan has of late been largely reduced.

[5] SKETCH ACCOUNT OF THE SHIVAGUNGA ZEMINDARRY.—This zemindarry is in Madura district; its area is 1,551 square miles and its population (1881) 432,428, living in 1,485 villages and 84,912 houses. The peshcush paid to Government is Rupees 2,58,641. The zemindarry was formerly part of the Ramnaud, Shetooputty's territory. About 1730 Cattaya Tevar the eleventh Shetooputty, assigned two-fifths of his principality to one Sasivarna Tevar, Poligar of

and twenty-two in Tinnevelly; altogether126. In Vol. II, App. XLVII, is given a complete list of all the zemindars and minor chieftains in the Presidency arranged by districts, and sub-divided where necessary into ancient zemindarries and pro-

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Nalçottah, in reward for the valuable services he rendered to him in wresting the possession of Ramnaud from Bhawany Shunkara Tevar, a usurper. The portion of territory thus acquired by Sasivarna Tevar received the name of Shivagunga, which thenceforward became a separate zemindarry independent of Ramnaud, though like other zemindarries it owed allegiance to the Nawab of the Carnatic. Sasivarna Tevar, the first zemindar, was on his death succeeded by his son Vadooganatha Tevar. In 1772 the Poligar, who was a tool in the hands of two upstart chieftains of low origin known as Periya Maroothoo and Chinna Maroothoo, manifested marks of disloyalty to the Nawab. A British force under Colonel Joseph Smith was sent against him, and in the ensuing hostilities the Poligar was killed while endeavouring to escape by one of the gates of the fort of Calayar Covil. His widow the Ranee accompanied by some of her friends fled to Dindigul where they were protected by Hyder Ally. In 1781 the Ranee was restored to the zemindarry, but her rule was only nominal. The Maroothoos, whose influence was unbounded, practically ruled the country. By the treaty of 1792 with the Nawab all sovereign power over the Poligar's country was transferred to the East India Company. The Ranee of Shivagunga died in 1800, and with her death Sasivarna Tevar's line became extinct. The Maroothoos assumed the ascendancy, and joining in rebellion openly set the British at defiance. The British force under Colonel Agnew soon put down this rising and drove the Maroothoos to take refuge at Calayar Covil which was eventually taken by storm. The Maroothoos were captured and consigned to the gallows. Thus the zemindarry became an escheat to Government. By a proclamation of 6th July 1801 Government installed as zemindar Gowryvallabha Tevar, who was a collateral descendant of the progenitors of the first zemindar Sasivarna Tevar. The permanent settlement of the estate was made with him under a Sunnud i milkeut istimrar (deed of agreement) in April 1803. In 1829 Gowryvallabha Tevar, the Istimrar zemindar died, leaving three widows and daughters. His elder brother one Oya Tevar, who held another family zemindarry called Padamatoor, and who died in 1815, had sons who survived the Istimrar zemindar. The eldest of these Mootoovadooganatha Tevar claimed right of succession to Shivagunga on the ground of the family being undivided, while the widows and daughters alleged that the heir was Angamoottoo Nachiyar the senior surviving wife of the deceased. In July 1830 a razeenamah or agreement of compromise was executed by the widows admitting the right of Moutoovadooganatha Tevar as zemindar. Acting on this document, the Government installed Mootoovadooganatha Tevar as zemindar of Shivagunga. He died and was succeeded by his son Bodha Gooroosawmy Tevar in June 1831. This succession, which was disputed by the widows and daughters of the deceased Istimrar zemindar, threw open the door for litigation which continued for half a century and has formed the salient feature of the recent history of Shivagunga. Vully Nachiyar daughter by the first wife, and Angamoottoo Nachiyar the senior surviving widow of the Istimrar zemindar, filed suits successively in the years 1832 and 1833 in the Provincial Court against the above Bodha Gooroosawmy for the recovery of the zemindarry. The Provincial Court dismissed both the suits in 1834, the decrees having been based on the assumption that the deceased Istimrar zemindar and his brother were undivided. On appeal the Sudder Court reversed the decrees of the Lower Courts in 1837 on the assumption of the contrary, viz., that the brothers were divided. On appeal to Her Majesty in Council, the Judicial Committee reversed the decree of the Sudder Court in 1844 on the ground that no points had been recorded on the question of division or non-division and directed the senior widow, Angamoottoo Nachiyar to bring a new suit. In the meantime Bodha Gooroosawmy Tevar died and was succeeded in the possession of the zemindarry by his brother Gowry Tevar. In 1845 Angamoottoo Nachiyar the senior widow of the Istimrar zemindar, filed a new suit. The Civil Court passed a decree in 1847, dismissing the suit on the ground that the Istimrar zemindar and his brother were undivided. From this Angamoottoo Nachiyar appealed to the Sudder Court. Pending the appeal both appellant and respondent died. In pursuance of a notice from the Sudder Court, Katama Nachiyar and another Sowrya Nachiyar daughters of the Istimrar zemindar by his third wife and his second widow respectively, came forward to supply the place of the appellant Angamoottoo Nachiyar. As for the deceased respondent Gowry Tevar, his eldest son and heir then an infant revived the appeal, the estate having been placed under the management of the Court of Wards. In 1852 the Sudder Court however struck the appeal off its file on the ground that appellants did not claim as representatives of the late appellant Angamoottoo Nachiyar but, claimed on their own distinct rights as descendants of the Istimrar zemindar. Thereupon Katama Nachiyar and Sowrya Nachiyar filed new suits in the Civil Court of Madura in the years 1856 and 1857 respectively against the guardian of the minor zemindar and the Collector as Agent to the Court of Wards for the recovery of the zemindarry. The Civil Court decreed against the plaintiffs in both the suits on the ground that the judgment passed by the Civil Court in 1847 in the suit brought to determine the status of the Istimrar zemindar was a judgment in rem and was conclusive against all the world, viz., that the Istimrar zemindar and his brother were undivided. This decree was affirmed by the Sudder Court on appeal in 1859. From this decree of the Sudder Court, as well as from the several adverse decrees and orders passed by the Civil and Sudder Courts from 1847 to 1859, Katama Nachiyar appealed to Her Majesty in Council. The other appellant, Sowrya Nachiyar referred to above died pending appeal in England. In 1863 the Privy Council passed a decision reversing the decrees appealed against and declaring the appellant Katama Nachiyar, the then only surviving daughter of the Istimrar zemindar, to be entitled to recover the zemindarry, which was her father's self-acquired property. Katama Nachiyar was accordingly installed into the zemindarry. Shortly after the Padamatoor or elder branch made one more attempt to re-open the question, which was finally defeated by a decision of the Judicial Committee of the Privy Council in 1866. From that time the younger branch of the family of the Istimrar zemindar has remained in possession without any further disturbance on the part of the Padamatoor or elder branch. In the year 1877 Katama Nachiyar died, when disputes arose among the members of the younger branch as regards the right of succession to the zemindarry. In 1869, i.e., eight years prior to the death of Katama Nachiyar Doraysinga Tevar, the eldest surviving grandson by a daughter of the Istimrar zemindar by his second wife, had instituted a suit to obtain a declaratory decree affirming his title to the zemindarry as against the heirs of Katama Nachiyar. The District Court and the Madras High Court decreed in his favor, but on appeal the Privy Council reversed the orders of the District and High Courts on the ground that the case was not a proper one for a declaratory decree. Again, on the death of Katama Nachiyar in 1877, the same Doraysinga Tevar instituted a regular suit, claiming succession to the zemindarry on the strength of the above declaratory decrees whereby his title was established. He established his claim in the District Court as well as before the High Court and the Privy Council on appeal. With this decision of the Privy Council in 1881 closed the extraordinarily lengthy litigation as regards the question of succession. No sooner had the District Judge decreed in his favor in December 1877 than Doraysinga Tevar was installed in the zemindarry. The estate was by this time greatly encumbered with debts incurred on account of the long litigation, and Doraysinga Tevar was a little more than nominal proprietor as, owing to the debts decreed against it, the whole of the estate passed into the hands of mortgagees and other creditors. Doraysinga Tevar died in July 1883 and was succeeded by his son Periasawmy Tevar alias Oodaiyana Tevar, who is the present titular zemindar of Shivagunga. This proprietor is in extremely narrow circumstances, the property being still in the hands of creditors and likely to remain so for many years to come.

[6] SKETCH ACCOUNT OF THE PITTAPORE ZEMINDARRY.—The principal zemindarry in the Godavery district is that of Pithapooram, or Pittapore, which is situated between the eastern branch of the Godavery and the district of Vizagapatam. The present zemindar is Vencata Mahaputty Gangadhar Rama Row. He was a minor when he succeeded to the estate on his father's death, and the zemindarry was consequently for twelve years under the management of the Collector. It has now been several years under the management of the zemindar himself. The family belongs to the Velama caste, and to the sub-division of that caste called 'Oogrooloo,' which is a term applied to those who gain their livelihood by the profession of arms. The Rajah's ancestors are said to have emigrated from Oudh. The zemindarry of Pittapore was bestowed on Ramchendra Rayanam, grandson of the original founder of the family, by the Mahomedan Government, in recognition of his services to the State. This grant was made two hundred and twenty-eight years

prietary estates, with the amount of peshcush paid. The law relating to zemindarries is principally that contained in the two Madras Regulations XXV and XXVI of 1802. Sections 2 and 3 of the former vest a proprietary right as against

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ago, or about 1647; and numerous rewards seem to have been granted to the family by the Mussalman governors during the time it was under their rule. A purwanna was issued in Hijra 1087 (A.D. 1676) to Jagga Rayanam brother of the original grantee, appointing him to be a sirdar in command of 350 men. Two years afterwards Krishna Rayanam the second owner of the estate, received from the Emperor of Delhi a grant, bestowing on him the village of Samulcottah as a 'mokhausa,' or rent free inheritance to descend to his family, and appointing him a sirdar in command of 150 men. In Hijra 1163 (A.D. 1749) an annual grant of five hundred pagodas was made to him by the Nizam. Four years later two further grants were made to the same Rajah; the first making over to him the fort of Pittapore with all its munitions of war, and the second granting him Caupavaram and other villages as a jagheer. The permanent grant of the estate, or as it was usually called in those days a Sunnud i milkeut istimrar, was conferred by the English Government in 1802, when the Permanent Settlement was effected, on Vencata Neeladry Rayanam who was then in possession of the estate. The Pittapore zemindarry contains about 371 square miles with a population of 184,018, of which 91,487 are males and 92,531 are females. Between 1871 and 1881 the population decreased by 24,658. The population consists almost entirely of Hindoos; there being only 4,636 Mahomedans and 907 Christians. The zemindarry is partly watered by the Yeleroo river, which rises in the north of Peddapooram talook and partly by anicut channels. More than one-third of the people consist of agriculturalists. Cocanada is situated within this zemindarry with a population of 28,856; besides this, there is only one town containing more than 10,000 inhabitants, viz., Pittapore which has 11,593. Six villages have a population exceeding 3,000, and there are 11 other villages which contain over 2,000 inhabitants.

[7] SKETCH ACCOUNT OF THE CARVETNUGGER ZEMINDARRY.—This is a zemindarry in the North Arcot district. It was originally a polliem in the hands of a Reddy family. About the close of the seventeenth or beginning of the eighteenth century one Saulava Reddy was Poligar. The descendants of a powerful Rajah family in the Northern Circars, Geddy Makharadzoo, and Bopparadzoo the ancestors of the present family, took service with Saulava Reddy, who appointed Makharadzoo his prime minister; Saulava Reddy dying issueless, Makharadzoo took possession of the polliem, obtaining a sunnud from the Nawab of the Carnatic, and appointed Bopparadzoo his prime minister. They have since maintained and improved their position. The reigning family of Carvetnugger thus belongs to the Rajoo caste and claims pure Cshatriya descent. The Carvetnugger and Calastry Poligars were originally feudal chiefs subject to the Rajah of Chundragherry himself subordinate to the Vijianugger kings. On the destruction of the latter kingdom at the battle of Talicote in 1565, Chundragherry became independent, but about the middle of the following century fell under the dominion of the Mahomedan kings of Golcondah and at the fall of the kingdoms of Golcondah and Beejapore they passed to the Nizam and his deputy the Nawab of the Carnatic, subject to the nominal control of the Emperors of Delhi. Situated as they are in a mountainous, and in those times remote, portion of the Eastern Ghauts, these Poligars long maintained their independence, fighting among themselves and withholding their tribute, but taking little or no part in the wars that devastated the Carnatic in connection with the rival pretenders for the nawabship or with the invasions of Hyder and Tippoo. In common with all the Carnatic Poligars, they came under the complete control of the British Government by the treaty of 1792 with the Nawab, to be managed on his behalf; and by that of 1801 they were finally ceded to the British Government. Carvetnugger having a population of 5,874, has long been the residence of this family. The town is seven miles west of Poottoor a station in the north-western line of the Madras railway. The Poligars of Carvetnugger held their estate on military tenure and were under an obligation to serve in time of war with a certain number of armed retainers. They made a considerable addition to the estate in the eighteenth century. The petty Poligar of Balinaidoo Polliem is said to have forcibly seized the daughter of Mahomed Ally when on her way from Hyderabad to Madras. The Nawab invited the Carvetnugger and Calastry Poligars to overthrow this poligar as well as other insubordinate chiefs in the neighbourhood. A battle was fought at Nattairy, when the petty poligars were routed and their lands divided between Carvetnugger and Calastry. Other polliems were about the same time annexed. In 1790 and again in 1799 the Zemindars of Carvetnugger and Calastry were at war one with another. But in 1801 both were obliged by the British Government to disband their armed retainers, and in the following year a permanent sunnud was issued to the Carvetnugger Poligar investing him with the title of zemindar. The original tribute on this estate was Rupees 1,14,051, but when the military tenure was abolished and the troops disbanded their cost was added, raising the tribute to Rupees 1,87,663; after various deductions on account of lands since taken up for public purposes it now amounts to Rupees 1,78,913. The annual revenue varies between 7 and 8 lakhs. The zemindarry, situated among the spurs and detached fragments of the range of the Eastern Ghauts, is bounded on the north-west and south by Government talooks of North Arcot, on the east by Chingleput district, and on the north-east by the Calastry Zemindarry. Its area is 435,122 acres, a large portion of which is mountain and forest. It has a population of 275,830, of whom 272,101 are Hindoos, 3,668 Mahomedans, 61 Christians and others. For the purposes of criminal administration the estate is divided into two divisions, Narrainavaram and Trittany, but the Zemindar for revenue administration divides it into three talooks, Narrainavaram, Trittany, and Pallipatt. There are 792 villages in the estate. The total number of houses is 43,846. The hills to the west are bare and rocky, but the Nagary mountains to the east are well covered with forest. This fine range terminates westward in an abrupt and lofty precipice which forms a prominent feature for many miles, and is used as a land-mark at sea; its height is 2,825 feet; it is known as the Nagary Nose. Carvetnugger is drained by the Narrainavaram and Nagary rivers, both torrents, dry except during the rains. It is the most fertile portion of the North Arcot district, the lands consisting of rich loams and clays, and everywhere well watered. High rents prevail, but the people are for the most part prosperous. The chief towns are Carvetnugger, Poottoor, Narrainavaram, Nagary, and Trittany. The present Zemindar, Raje Bomma Rajah Bahaudur, succeeded his father who died on the 17th April 1884. The estate is involved in heavy liabilities.

[8] SKETCH ACCOUNT OF THE CALASTRY ZEMINDARRY.—The family from which the Calastry Zemindar sprang belonged to the Velama caste. They were originally Mencauvalgars, or chief superintendents, appointed by the Vijianugger kings about the fifteenth century. After the fall of that kingdom they waged constant war against their neighbours and enlarged their estate by appropriating fresh territories. An outline of the early history of this zemindarry is given in the notice of Carvetnugger. In the middle of the seventeenth century their territory extended as far as Madras on the east and beyond Conjeeveram on the south. It was from one of the Calastry Poligars, Damarla Vencatadry Naidoo, that Mr. Day on behalf of the East India Company, in 1639, obtained the grant of Chinna Cooppam, a small fishing village north of Mylapore, where Fort Saint George now stands. The grant was confirmed by the Rajah of Chundragherry whose vassal at that time the Calastry Poligar was. The earliest sunnud obtained by the Poligar was one from the Emperor Aurungzeeb. It showed that the estate was then held upon a military tenure under the immediate control of the Nawab of Arcot, at whose summons the Poligar was bound to appear in the field with 5,000 armed men. Their military power was always considerable and was constantly employed in petty wars, either the result of quarrels with the neighbouring Poligars, or for the purpose of enlarging their territories. In 1801 the Poligar in common with Carvetnugger and others had to disband his armed retainers, and in the following year was granted a permanent sunnud as zemindar. The tribute paid by the estate at the close of the eighteenth century was small, amounting to Rupees 37,713. But when it came under the authority of the British Government it was resolved to relieve the zemindar of the burden of maintaining troops, adding in proportion to the amount of tribute. This was accordingly raised to Rupees 1,90,488. It now stands at Rupees 1,73,812. The annual revenue of the estate is about 5 lakhs. The father of the present zemindar received the title of Rajah in 1875 and on the 1st January 1876 received a further distinction as a Companion of the Star of India. The zemindarry is situated partly in North Arcot and partly in the Nellore district, and lies upon the boundary of the North Arcot and Chingleput districts. It adjoins the Carvetnugger Zemindarry on the south-west. It has an area of 380,651 acres, and a population of 118,022, of whom 114,991 are Hindoos, 2,907 are

Government in zemindars, their heirs and lawful successors for ever, an assessment being imposed; the Government and the zemindar exchanging agreements. This does not bar the sale law, where Government sell for arrears of assessment. When

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Mahomedans and 124 Christians. For public purposes it is divided into the Calastry and Maderpauk divisions, each in charge of a sub-magistrate; the Zemindar divides the estate for revenue purposes into the talooks of Calastry and Cunchinaud. The zemindarry consists of 599 villages with 22,405 houses. Its rivers are the Swarnamookhy, the Palaur and the Arnanuddy or Narrainavaram river. The Swarnamookhy when in flood is a broad and deep stream, but is little utilized for irrigation. The soil is for the most part sandy and poor, but there are numerous tanks for irrigation. The Zemindar receives the rent in kind. It varies from village to village, but half the produce is the general rate. Besides lime and building stone, the estate has a soda soil from which rude ornaments of glass are manufactured. The only place of importance is Calastry where the Zemindar resides, a town with 9,935 inhabitants.

[9] SKETCH ACCOUNT OF THE NIDADVOLE ZEMINDARRY.—This is an estate created out of the ancient zemindarry of Noozveed in the Kistna district. The entire zemindarry was held in 1772 by one Narsimha Appah Row. He was proclaimed a rebel, and was removed from the zemindarry in 1784, and his eldest son, Vencata Narsimha Appah Row, was recognized as zemindar in his place. Under his lax management the zemindarry suffered financially, and in 1793 was resumed by Government for arrears of revenue. In 1802 the zemindarry was restored. And by virtue of an agreement entered into by Vencata Narsimha Appah Row with his step-brother, Ramchendra Appah Row, and in the interests of the peace of the zemindarry, two estates were then created out of it; and sunnuds were issued to the eldest brother, Vencata Narsimha Appah Row, for the Nidadvole estate, and to Ramchendra for the remaining portion of the Noozveed estate. Narsimha Appah Row was succeeded in 1827 by his adopted son, Naraya Appah Row, who was then a minor, and the estate was therefore taken under the management of the Court of Wards, being again made over in 1835 on the zemindar attaining his majority. In consequence of the heavy debts incurred by his father, and owing to bad years, Naraya Appah Row failed to pay the Government peshcush regularly, and the estates were attached and brought to sale in 1843, when Government interfered for the relief of the family, bought the estate for Rupees 8,00,000 and making over a portion of it to the Noozveed Zemindar in satisfaction of his claims, remitted the arrears of peshcush, compromised other liabilities, and restored the three pergunnahs of Nidadvole, Bharzully, and Ambarapett to Naraya Appah Row with a fresh sunnud. The zemindar again fell in arrears, and the pergunnahs of Nidadvole and Bharzully were again sold and bought by Government for Rupees 10,000, but owing to a certain illegality in the procedure the sale was set aside, and the pergunnahs were restored to the zemindar in 1859. Naraya Appah Row died in 1864 leaving two widows, of whom the survivor Ranee Papamma now holds the estate. The three pergunnahs comprise an area of 232 square miles, and contain a population of 102,301 souls. The peshcush payable to Government is Rupees 1,31,269-2-7.

[10] SKETCH ACCOUNT OF THE NOOZVEED ZEMINDARRY.—The Noozveed Zemindarry exists no longer as a whole. In 1881, it was partitioned into six shares, each being registered as a separate estate. The Noozveed Zemindarry as an entire estate is bounded on the north by the Godavery district; on the east by the same district and Goodivauda talook; on the south by the Bunder and Bezwada talooks; and on the west by the Bezwada talook and the Vissanapett division. Area 69 square miles, population 125,165, number of villages 231, revenue Rupees 5,06,509, peshcush before partition Rupees 95,443. The only important towns are Noozveed. The seat of the Zemindars—60 miles north-west of Masulipatam—and Gunnavaram—the head-quarters of the Deputy Tahsildar and Magistrate in charge of the Zemindarry Division. The language spoken is Teloogoo. The occupation of the inhabitants is chiefly agriculture. The only metalled road is that from Periked to Noozveed, 15¼ miles long. Three schools on the combined system and 58 on the result system are maintained by the Local Fund Board: as also a third-class hospital at Noozveed under a Civil Apothecary. In the heart of the estate are situated two villages—Booravancha and Mallavaram—belonging to the Nizam. North of the Ellore canal the soil is rocky; south of it, it is black cotton or regur. Sand-stones form the chief geological feature of the northern tract. The staple crops are maize, cholam and rice. No forests exist. The Zemindars belong to the Velama caste, and are the most ancient landlords in the district. The first known member of this family is Meka Basavanna who leaving the service of Kalikala, king of Chola, came from the south early in the sixteenth century, and built a fort near Gollapully. He was succeeded by his son Timmanna, his grandson Basavanna, and his great grandson Konappa. Konappa had four sons. His second son Vencatadry in 1652 rented some villages about Gollapully; and his son Appanna called Vijaya received in 1667 from the king of Golcondah the titles of 'Tahaveer Vajalalat Doostoogaha': 'Rajah Bahaudur': and 'Appah Row'—the last since added to the name of every male born in the family. He built the fort at Noozveed. His only son Vencatadry rented three pergunnahs and was succeeded by his two sons Narsimha and Sobhanadry. Narsimha received the title of 'Teen Hazaur Mansabdar': and led 3,000 men to the standard of his suzerain. Sobhanadry who succeeded him assumed the title of Zemindar and the estate consisted of 18 pergunnahs. During the time of Asafjah Soobahdar of the Deccan, the estate passed to Ramchendra Narsimha Appah Row—a descendant of Bapanna the fourth son of Konappa. Asafjah marched into this country to restore the central authority. Ramchendra resisted and stood a siege of three months in the Noozveed fort. But not long afterwards the Fowjdar Roostum Ally Khan took the fort and beheaded Ramchendra, whose skull was added to the pile of the zemindars' skulls on the bastion of Ellore fort. Roostum Ally Khan kept the estates under management for twelve years. Vencatadry Appah Row of Noozveed in 1759 obtained Amaldarry sunnuds from the Fowjdar and in 1763 Zemindarry sunnuds for all the 18 pergunnahs from Soobahdar Nizam Ally Khan. In 1766 the Condapilly and Ellore circars were ceded by the Nizam to the East India Company with whom Vencatadry Appah Row treated regarding his estates. In 1771 he died, and was succeeded by his brother Narsimha Appah Row. This turbulent zemindar entangled himself in warfare with the Company. In November 1784 his fort was destroyed and he was removed from the zemindarry, his eldest son Vencata Narsimha Appah Row being recognized as zemindar. Ramchendra Appah Row, a younger son of the old zemindar, claimed half of the zemindarry and collected a large body of armed men to enforce his claim. About this time the financial circumstances of the zemindarry were very much straitened by the famine of 1792 and 93. On the 22nd July 1793 Mr. Robert Gardiner was appointed Collector of Noozveed. He received charge of all the records and of the person of the zemindar, who was detained at Masulipatam. It was finally decided that the zemindarry should be divided between the Zemindar Vencata Narsimha Appah Row and his step brother Ramchendra Appah Row. In December 1802 sunnuds were issued to the former for the Nidadvole pergunnahs in the Godavery district: and to the latter for the six pergunnahs of Weyyore, Medoor, Noonastalam, Chatrye, Vijiarayi and Gollapully which formed a third portion of the estates. The youngest brother Narsimha Appah Row—a minor—received nothing. In 1805 he commenced a suit claiming half of the Noozveed property. But the suit was finally rejected in 1819. Through the intervention of Sir Frederick Adam a money allowance was granted for his maintenance. Ramchendra Appah Row, Zemindar of Noozveed, died on 20th November 1814, leaving an only son Sobhanadry Appah Row aged 5 years. His estates were managed by the Court of Wards until 1831 when the zemindar, having come of age, took possession of them together with a balance of 14 lakhs in his treasury, but he soon became burdened with debts. He died on the 28th October 1868 leaving six sons. The eldest Naraya Appah Row was recognized as zemindar. After a successful administration of 9 years he died on the 19th July 1877 leaving three minor sons. The eldest Rajah Gopaul Appah Row was recognized as zemindar and the estates taken under the Court of Wards. Vencata Narsimha Appah Row, the fourth son of Sobhanadry Appa Row, obtained in December 1879 the decree of Her Majesty's Privy Council for one-sixth share of the estate. The Collector of the district was entrusted with the division. He arranged a compromise under which the minors retained one-sixth of the estates and a sum of money in hand. The remainder of the estates and of the money at the credit of the minors was divided among the five uncles. The three minors have now come of age and propose to divide their sixth share.

whole or part of a zemindarry of the second class is alienated, the alienation must be registered in the office of the Collector of the district; otherwise the Government will not recognize it (sections 8 and 9 of Regulation XXV, and section 3 of Regulation

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[11] SKETCH ACCOUNT OF THE BOBBILY ZEMINDARRY.—This estate is in Vizagapatam district. Lat. 18° 22' to 18° 46' N., long. 83° 10' to 83° 20' E.; area 920 square miles, containing 210 villages, with 33,765 houses, and (1881) 158,178 inhabitants, almost all Hindoos. It is surrounded by the British talooks of Gujapatinugger, Cheepoorpully, Saulore, Parvatipore, Palcondah and Bobbily. It consists of five pergunnahs Bebbooly, Rajam, and Kavitey, Seetanagram, and Mettoogramamooloo, and yields to its owner a revenue of Rupees 3,75,000 per annum. Of this, Rupees 90,000 is paid to Government as peshcush. The estate possesses an interesting history. When in 1652, Sher Mahomed Khan, the Nawab of Chicacole, entered the district, he was accompanied by two men rivals to each other—one being Peddarayoodoo, the ancestor of, the present chief of Bobbily and the other the ancestor of the Vizianagram family; and from this time dates the rivalry between the two houses. Peddarayoodoo soon after received in reward for gallantry the estate of Rajam, where he built a fort, naming it Bebbooly (the royal tiger), in honor of his patron's designation, Sher (tiger). From Bebbooly the name of the town and zemindarry has been corrupted into Bobbily. This estate bordered on Vizianagram, and the ill-feeling between the chiefs was increased by constant conflicts of interest. In 1756, the disorderly behaviour of the Poligars called for measures of repression, and M. Bussy marched with a European force to restore order. On his reaching Vizianagram, the Rajah assured him that the chief of Bobbily was the instigator of all disturbances, and to testify his own loyalty, joined the French with a force of 11,000 men to assist in crushing his rival. Before attacking the latter, M. Bussy offered the chief a pardon for the past, and lands of equal value elsewhere, if he would abandon his ancestral estate; but the offer was refused. The attack on the fort of Bobbily is one of the most memorable in Indian history. At daybreak, the field-pieces began to play on the mud defences, practicable breaches were at once made, and the assault sounded. After four hours' desperate fighting, hand to hand, Bussy called off his men to allow the cannon to widen the breaches. A second assault was then ordered, but with no better results; for not a man had gained footing within the ramparts when five hours later Bussy again withdrew the storming party to repeat the argument of artillery. The defenders now recognized their desperate position, and collecting their wives and families put them to death, and returned to their posts. The assault soon recommenced; and when at sunset Bussy entered the fort as victor with the remnant of his army, it was only because every man of the garrison was dead or desperately wounded. An old man however crept from a hut, and leading a child to Bussy presented him as the son of the dead chief. Four other men had preserved their lives; and two nights later, when the Vizianagram camp was buried in sleep, they crept into the Rajah's tent, and before the sentries had discovered and shot down the assassins, they had stabbed the Rajah to death with thirty-two wounds. The child, Chinna Runga Row, saved from the slaughter, was invested by Bussy with the chiefship of the lands that had been offered to his father; but before he attained his majority, his uncle regained by force of arms the former estate of Rajam. At last the Vizianagram family compromised with their rivals, and leased to them the Kavitey and Rajam pergunnahs. The old feud however again broke out, and the Bobbily chief fled into the Nizam's country. In 1794, when the Vizianagram estate was dismembered, Chinna Runga Row was restored by the British to his father's domains, and in 1801 a permanent settlement was concluded with Chinna Runga Row's adopted son, Royadappa at an annual tribute of Rupees 90,000. Since then the peace of the estate has been undisturbed. Royadappa was succeeded in 1830 by his son Swetachellaputty who was an excellent manager of the property. Dying in 1862, Swetachellaputty was succeeded by Seetaramakrishna whom he adopted out of the family of the Zemindar of Pittapore in the Godavery district. Seetaramakrishna having died childless in 1868, his widow, Lakshmee Chellegoomma, succeeded to the estate. In 1876, the title of Ranee was conferred upon her in consideration of her liberality in contributing 1,000 garces of paddy to alleviate the distress during the Bengal famine. In 1871, she adopted the present Zemindar Vencata Swetachellaputty out of the family of the Zemindar of Vencatagherry in the Nellore district. Vencata Swetachellaputty assumed charge of the estate in 1881 on his attaining majority.

[12] SKETCH ACCOUNT OF THE PARLAKIMEDY ZEMINDARRY.—This zemindarry is in Ganjam district, extending over an area of 993 square miles, which includes maliah or hill country. The population (1881) is 280,132, inhabiting 57,033 houses and 1,065 villages. The estate pays a peshcush of Rupees 87,823, the proprietary income being returned at Rupees 5,13,000. The zemindars claim descent from the royal house of Orissa Gujapaties (Gungavamsa), and take precedence in the district. Ten hill chiefs called Bissoyes, and 23 smaller chiefs called Doras, owe feudal allegiance and pay tribute to the Rajah. The British first came into contact with the family in 1768, when Colonel Peach lead a detachment against Narrain Deo, the zemindar, and defeated him at Jalmoor. In 1799, the Company temporarily assumed control of the estate for breach of engagement. Restored to the family, this difficult country was the scene of continued disturbances for many years. In 1816, it was ravaged by Pindarries; and in 1819, it was found necessary to send a special commissioner, Mr. Thackeray, to suppress a rising. Again, in 1833, a field force was sent into Parlakimedy under General Taylor, and it was not till 1835 that peace was restored. Owing to the incapacity of the proprietor, who is an imbecile, the estate was taken over in 1830 by the Court of Wards on behalf of Government, and has since continued uninterruptedly under management for upwards of 52 years. The estate enjoys great natural advantages, and is quite solvent. The greater portion of the estate was surveyed on the block system in 1868 and the assessment was also revised by the Collector at the same time. As the estate is in a position to bear the expense, a more accurate survey and classification of soil by professional officers was lately sanctioned and is now in progress. Out of the surplus which has been accumulating to the credit of the estate, some Rupees 1,36,235 have been spent within the past five years on roads and buildings; Rupees 82,960 on irrigation works; and about 6 lakhs of rupees towards the construction of a suitable palace for the Zemindar. Twenty-two lakhs and-a-half out of the surplus of the estate have been invested in Government securities.

[13] SKETCH ACCOUNT OF THE JEYPORE ZEMINDARRY.—This is a zemindarry estate in Vizagapatam district, lying between 17° 30' and 20° N. lat. and 81° 20' and 84° 4' E. long. Bounded on the north by Kalahundy in the Central Provinces; on the east by the Ganjam Maliahs and plain of Vizagapatam; on the south by Rekapully and Golcondah; and on the west by Bustar. Its area is 11,526 square miles; the number of houses in it is 129,035; the population in 1881 was 589,119. Though from its area it should come first in the list, it pays only 16,000 rupees peshcush. Jeypore may be divided into two parts. The large portion, directly under the Rajah and within the jurisdiction of the Special Assistant Agent lies on the so-called Jeypore plateau; the other portion consists of the talook of Goonapore and Royagooda and is administered by the Senior Assistant Collector, whose head-quarters are at Parvatipore. To the east and north-east of Goonapore lies the Sowrah Hill country, consisting of two tablelands, about 200 square miles in extent. North of Goonapore the estate runs up in a wedge-like form to a distance of 70 miles between Kalahundy of the Central Provinces on the west and Chinna Kimedy on the east, reaching very nearly to 20° North latitude. In the centre of this tract stands out the group of hills named Neemgherry; which rise to a height of 5,000 feet, and are separated by valleys (of not more than 1,200 feet above the sea) from the ranges of ghauts on the west and east. The proposed railway to connect the Central Provinces with Vizagapatam passes just under the eastern side of these hills, and through a remarkable gap in the ghauts that occurs at Ombadola to the north of them. This gap is the only depression in the ghauts that is found between the Godavery and the Mahanuddy rivers, and it has been happily selected for the new railway. The drainage from the Neemgherry and the neighbouring country flows directly in a south-easterly direction to the sea, forming at Calingapatam the river Vamshadhara so called from the bamboos growing on its banks and the Nagauvaly at Chicacole. Exclusive of large tracts held by semi-independent Khonds, the upper portion is occupied by two powerful chiefs, one at Bissemcottah and one at Singapore, both feudatories of Jeypore. The population here numbers 249,920, the largest villages being Goonapore, Royagooda,

XXVI). The whole bearings of the law and practice affecting zemindarries in connection with the land-revenue system will be found discussed in the article on Land Revenue. Under section 15 of Regulation XXV, zemindars are bound to assist in arresting offenders and to give information as to the resort of robbers and other disturbers of the public peace taking refuge in their zemindarries.

PUBLIC ENDOWMENTS.

61. NATURE OF THE CONTROL, &c.—The endowments,[1] whether originally from Government or from private persons, attached to the most of the mosques, temples, and other religious establishments of the Presidency are in the hands of Committees acting under India Act XX of 1863. Others are still in charge of hereditary

Singapore, Bissemcottah. The portion of the country above the ghauts consists of the talooks of Koraputt, Pottinghy, Jeypore, Navarungapore, Mulkangherry. It is a tract 200 miles long by 40 broad, and contains according to the census of 1881 72,341 houses and 339,199 inhabitants. The principal towns are Jeypore (1,046 houses and 4,321 inhabitants), Cotapaud (605 houses, 3,096 inhabitants), Navarungapore (321 houses, 1,467 inhabitants). The religion of the country is Hindoo. Ethnically, the inhabitants include Aryans, Kolarians, and Dravidians. The so-called Aryans are comparatively recent colonists, and comprise the ruling and fighting men and the priests. The cultivators called Prajah (literally subjects) number more than two-thirds of the entire population; Aryans represent one-seventeenth, Pariahs one-sixth. The mountaineers retain far greater independence than the ryots of the Jeypore and Mulkangherry plateau. Every variety of land tenure is found throughout Jeypore. The most interesting is that in which the ownership of the soil still rests with the people, in contradistinction to the landlord tenure generally held by the zemindars. It is only of late years that the annual gift in token of homage has been commuted to a payment in kind or money. In such cases, the landowner is, nearly always the head of the village; and though it may be doubted whether he has any right to dispose of the soil for his own private interests, he has been in the habit of selling or mortgaging parts of the landed property of the village without reference to the Rajah or to his managers. From this condition of rights, a regular gradation can be traced in the tenures, as they pass to the paramount authority of the Rajah. The religious ceremonies and social customs of the various tribes differ but little from one another. The process of fusion of the habits of later immigrants with original customs is however very apparent. In those parts of the country which are in a prosperous condition, ideas and manners imported from the coast districts are gradually absorbing early conceptions; but, on the other hand in jungle-covered and backward lands, the colonists are in their turn affected by the superstitions of the more indigenous races. Thus, in Cotapaud and Singapore, highly cultivated and flourishing tracts, the new-comers have taught the earlier races to burn their dead instead of burying them; and the practice of early marriages is spreading among the richer ryots, a custom altogether foreign to the early population. As an instance of the way in which religious rites are borrowed from the earlier inhabitants, the meriah sacrifice may be quoted. This is believed to be strictly a Khond rite; yet it was adopted by the colonists, for we have evidence that it was practised by the former Rajahs of this and the neighbouring hill states. A more familiar example is the persistent belief in witchcraft, characteristic of forests and lonely tracts. The zemindarry and the family of the Rajah are both of old standing, and the origin of both is involved in considerable doubt. The country was formerly held by a Shila Vamsha ruler, who reigned at Nundapore when the ancestors of the present house were retainers of the Gujapaty rulers of Cuttack. About the fifteenth century Vinayak Deo, the founder, a Rajpoot of the Lunar line is said to have married a daughter of the Gujapaty ruler, who bestowed this principality upon him, on the extinction of the old line of the Nundapore chiefs. To secure his pretensions with the wild races of the highlands, the new feudatory took for his second wife the last surviving princess of the ancient stock of Shila Vamsha rulers. Whatever their origin, it is certain that an ancestor of the Jeypore family was in possession, not only of the country comprised in the limits of the Jeypore Zemindarry as it now stands, but of all the present hill zemindarries which lie at the base of the ghauts, when the founder of the Vizianagram Raj came to Chicacole in the train of the Golcondah Fowjdar, Sher Mahomed Khan, about the year 1652. The tribute payable by Jeypore to the Fowjdar was Rupees 24,000. Previous to the acquisition of the Northern Circars by the Company, Jeypore was subordinated to Vizianagram and this relation was upheld by the British till 1794, when the Rajah's loyalty after the battle of Padmanabham was rewarded by a perpetual sunnud. In 1803 his peshcush was fixed at Rupees 16,000. In addition to this, Jeypore pays Rupees 3,000 annually to Bustar for the Cotapaud country. In 1848, the affairs of the estate fell into great confusion, owing to the insubordination of some members of the Rajah's family. The disturbance went so far that the lower talooks were attached by Government. It then broke out again in 1855. In 1860 for the first time, the British interfered in the administration of justice in the zemindarry, and since the accession of the present Rajah Ramchendradeo, the Assistant Agent has resided within Jeypore. Eight sub-magistrates and a strong police force are located in the zemindarry. There were two unimportant outbreaks of Sowrahs in 1865-66. In 1876, the title of Maharajah was conferred upon the present Zemindar. His son, the heir to the zemindarry, is now a lad of 12 years of age.

[1] SKETCH HISTORY OF CONNECTION OF GOVERNMENT WITH RELIGIOUS AND OTHER ENDOWMENTS.—In 1817 with a view to check misappropriation the Government assumed the more or less direct control of all endowments in land or money made by itself or previous Governments, or by private persons, for the support of religious or charitable institutions, or for public buildings, such as bridges, choultries, &c. By Regulation VII of 1817 the Board of Revenue was appointed to control all these endowments, subject to the general supervision of Government. (2) So far as endowments for religious purposes were concerned the control of the Revenue Board in so far as it was exercised, was transferred by India Act XX of 1863 from the Board to district committees then once for all appointed by Government but subsequently recruited by election among the communities interested. The district committees have proved more or less a failure, and a revision of the law has been more than once under contemplation. The committees themselves have complained of want of authority; while, on the other hand, the public have complained that there are no means of ascertaining how the committees manage the endowments entrusted to their care, except by means of a law suit. In 1876 a committee was appointed by Government to prepare a draft Bill, which would place matters on a proper footing without throwing the responsibility of the management of religious establishments on the Government. The Bill submitted by this committee was before Government for four years, but in 1880 was put aside. A new Bill was drafted in 1883, which with other Bills on the same subject is now under the consideration of a committee specially appointed. (3) The supervision of endowed charitable institutions ("lungherkhanas" and "native choultries") remained till quite recently with the Board of Revenue. In most cases these institutions were allowed by the Board to remain under the immediate management of private individuals appointed as trustees by the founders, and the Board did not interfere so long as the object of the grant was duly fulfilled; where there had been neglect or irregularity on the part of the

trustees, over whom there is no public control. These however are generally small institutions. With regard to the payments of the Government itself towards pagodas and mosques, (called "tasdik" allowances,) where this obligation has been handed on to the British Government by previous Governments, efforts have from time to time been made to convert all ready-money payments into assignments of land revenue. The arrangement has however been only very partially carried out owing to the general reluctance of landholders to have their revenue so assigned. It has now for some years been settled that money allowances shall continue to be paid, but not from the Government treasury. The payments are now made direct to the trustees by the villagers concerned. They do this out of the revenues due by them to Government by the system of what is called "beriz deductions," the Government taking so much off the demand due as the total collections of the village. The actual paymaster is the village monigar, who pays the amount thus remitted by Government in one sum to the representative of the pagoda or mosque. This method of indirect payment was adopted in 1878 in deference to certain objections made, and in order to keep the cash payments out of the finance accounts. The land assignments still remain as before. The nature of the control of charitable endowments can be seen from the remarks in the foot-note. The Government occasionally give waste land as an inducement for the construction of new choultries. The law relating to Charitable Endowments is shown under that title in Vol. II, App. LIV. The annual value of the land revenue assigned for religious and charitable institutions is about 31,58,000 rupees, and the ready-money payments made by Government for the same institutions by deductions from the beriz or demand amount to about $6\frac{3}{4}$ lakhs; making a total of $37\frac{1}{4}$ lakhs of rupees.

CIVIL DIVISIONS.

62. Introduction.—The English Act of Parliament, 39 & 40 Geo. III, c. 79 (1800), empowered the Court of Directors in England to determine what places should be subject to either of the Presidencies or Governorships. This power under section I, 21 & 22 Vic., c. 116, has passed to the Crown. The English Act of Parliament, 28 Vic., c. 17 (1865), section 4, authorizes the Governor-General in Council to declare by proclamation the territorial limits of the several Presidencies and Lieutenant-Governorships, making such new distribution and arrangement of territory as may seem expedient to him. Under section 5 the Secretary of State is given power to disallow this proclamation, and the Royal sanction is necessary when an entire zillah or district is transferred from one Presidency to another. The terms zillah and district so employed are not defined in any legal enactment; but they are by usage held to be synonymous, and to indicate the territorial jurisdiction of a District and Sessions Judge and a Collector, when that of both coincides. Chapter 15 of the same Act of Parliament makes somewhat similar arrangements as to the transfer of jurisdiction from one Presidency High Court to another. The internal divisions of the Presidency are at the present day various and could therefore be better discussed under the different administrative heads. Some remarks will however be here given showing them at one view.

63. Divisions relating to Law and Justice.—Madras is and always has been with small deductions a regulation province, in the former acceptation of that term. Its power of making regulation dates from the first year of the century, and the new territories which have since been added to it have been for the most part made expressly subordinate to it so as to share its laws and regulations according to the interpretation of the law formerly in force. At the present day

trustees the institutions were placed under the management of Collectors acting as agents to the Board. Chuttrams constructed and endowed by Government were managed similarly by Collectors. In 1881, however, the control provided by Regulation VII of 1817 for charitable institutions was transferred from the Board of Revenue to Local Fund Boards (see section 11, Madras Act IV of 1871), whether in the case of institutions managed hitherto by Collectors or in the case of institutions privately managed. In the latter case the private managers were of course still retained, the Local Boards merely taking over the supervising powers of the Board of Revenue.

when the provisions of the Parliamentary Indian Councils Act of 1861 (24 and 25 Vic., c. 67) and the different Indian Local Laws Extent Acts have placed the non-regulation provinces of India on much the same footing as the regulation provinces, Madras still differs from the former in the particular that certain offices within it can only be held by Covenanted Civilians. The Kurnool and Tanjore Districts however were not made amenable to the Madras Regulations and Acts until 1858. And India Act XXIV of 1839 partly de-regulationized certain hill tracts in Ganjam and Vizagapatam; this provision being confirmed by the Indian Councils Act of 1861 and two India Acts of 1874, and the tracts still remaining on the same footing. Under the 1839 Act the entire judicial administration, both civil and criminal, was vested in the Collector. As to law, the operation of all laws relating to civil and criminal justice then existing was barred; subject to rules to be made by Government. This barring of the operation of laws has not been held to be applicable to laws passed since 1839. Again the mere fact of an Act appearing in schedule 2 of India Act XV of 1874, the Laws Local Extent Act, is held to be no definite evidence of its not being applicable in the Ganjam and Vizagapatam hill tracts. As a more modern step of a de-regulationizing nature, the tracts just mentioned with others making the list shown below [1] were placed in schedule I of India Act XIV of 1874 (Scheduled Districts Act) which gives the Government three powers. One to notify that the Act itself is applicable in the tract, and so constitute it a scheduled district 'de facto' as well as 'de jure;' the second to make declaratory statements as to such and such laws being in force in the tract, where there are doubts on the point; the third to extend to such tract Acts belonging to other parts of British India, but not yet applicable to the tract. These notifications require the previous sanction of the Supreme Government. It will be observed that the net result is to enable the Government to add to but not to subtract from the law in force in the tracts. As to the second head of notification the policy has been to make no exhaustive list, but to issue a notification in the case of particular Acts as occasion arises. Further as all Acts passed since India Act XV of 1874 prescribe their local extent or applicability, the necessity for acting under this provision arises with regard to enactments only which are prior to that date. The tracts covered by the 1839 Act have not been brought by this Government under the 1874 Act, as they are satisfied with the situation left under the 1839 Act. In addition to the provisions of the Indian Councils Act, section 7 of India Act XIV of 1874 and section 8 (c) of India Act XV of 1874 reserve all the powers existing under the 1839 Act. The Act of 1874 was in 1879 applied by this Government in the Godavery district, but it has not been applied in the Laccadives. Under Act of Parliament 33 Vic. c. 3 (1870), entitled "An Act to make better provision for making Laws and Regulations for certain parts of India and for certain other purposes relating thereto," the Secretary of State may at any time by declaration add to the list of scheduled tracts shown in India Act XIV of 1874. This power has been applied for the first time recently within the Madras Presidency, the jungle tracts of the Godavery district mentioned at foot,[2] which are not comprised in the Rumpa country or in the Bhadrachellam and Rekapully talooks, having been brought under the Scheduled Districts Act, 1874, from the 8th May 1883. The unit of judicial administration, criminal and civil, in this Presidency was under the Mahomedan rule and so continued by the English the 'zillah;' a term however not defined by any legal enactment, for which see the observation above. Madras Act I of 1865 enables the Madras Government to alter at pleasure the limits of existing zillahs

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[1] TRACTS IN THIS PRESIDENCY ENTERED IN THE SCHEDULES OF INDIA ACT XIV OF 1874.—*In Ganjam*—The Goomsoor Maliahs, including Chocapaud; the Sooradah Maliahs; the Chinna Kimedy Maliahs; the Pedda Kimedy Maliahs; the Bodagooda Maliahs; the Soorangy Maliahs; the Parlakimedy Maliahs; the Mootahs of Coradah and Ronabah (otherwise called Shreecarma); the Cheekaty Maliah; the Jarada Maliah; the Jalantra Maliah; the Mundasa Maliah; the Boodaurasinghy Maliah; the Cuttingia Maliah. (2) *In Vizagapatam*—The Jeypore Zemindarry; Golcondah Hills, west of the river Bodairoo; the Madgole Maliahs; the Causipore Zemindarry; the Punchipenta Maliahs; Mondemcull in the Merangy Zemindarry; the Condah Mootah of Belgaum; the Goomma and Condah Mootahs of Cooroopaum; the Cothaum, Ram and Condah Mootahs of Palcondah. (3) *In the Godavery district*—The Bhadrachellam talook; the Rekapully talook; the Rumpa country. (4) *In the Indian Ocean.*—The Laccadive Islands, including Minicoy.

[2] TRACTS IN THE GODAVERY DISTRICT NOTIFIED BY THE SECRETARY OF STATE AS ADDED TO THOSE SCHEDULES.—(*a*) The unsettled Government villages in the Yernagoodem talook; (*b*) The villages of the ex-Mansabdar of Jaddangy; and (*c*) The following petty proprietary estates, viz.:—Bayanagoodem, Billamilly, Jangamreddygoodem, Gootaula, Gungole, Pattesam, Polaveram, Pettah, Dandangy, Veeravaram, Deviputnam.

within the Presidency, no revision being reserved to the Supreme Government. For the purposes of criminal justice, section 7 of India Act X of 1882, the Code of Criminal Procedure, now also declares that every province (excluding the Presidency towns) shall consist of sessions divisions, and that every sessions division shall be a 'distinct' or consist of districts; and the Local Government have the power under this section to alter the limits, or, with the previous sanction of the Governor-General in Council, the number of these divisions or districts. The Presidency town is a district in the above sense. Under section 8 the Government can divide any such district outside the Presidency town into sub-divisions, with power subsequently to vary the limits of the sub-divisions. The definition of 'district' for the purposes of civil jurisdiction is given in section 2 of India Act XIV of 1882, the Code of Civil Procedure, as the local limits of the jurisdiction of a principal civil court of original jurisdiction, thereafter called a District Court. Such jurisdictory limits are definable by the Local Government under Madras Act I of 1865 before-mentioned. A civil district under the Civil Procedure Code includes the local limits of the ordinary original civil jurisdiction of the High Court, that is to say the limits of the Presidency town. The local limits of the jurisdiction of the Presidency Small Cause Court are defined by section 17 of India Act XV of 1882, the Presidency Small Cause Courts Act, to be the same as the local limits for the time being of the ordinary original civil jurisdiction of the High Court. The detailed law relating to the subject of this article is shown under the heading "Civil Divisions" in Vol. II, App. LIV.

64. REVENUE DISTRICTS.—The most important of the administrative divisions of the country is the revenue district. Formerly it was called a zillah; equally with the judicial district, from which it took its name. The revenue district gives the limits to most of the operations of Government and corresponds to the French department. Under Madras Act I of 1865 the Local Government can make changes in the extent of the revenue districts, no revision being reserved by law to the Supreme Government. The grouping of revenue districts into Commissioners' divisions, instituted by Lord W. Bentinck, has not been carried out in this Presidency. The Presidency, according to existing boundary divisions, is made up of twenty-two revenue districts grouped technically according to geographical position, &c., as below.[3] The area, population, and revenue are added in the table. The average size of a district excluding Madras and the Neilgherries is 6,946 square miles, the average population similarly is 1,519,853, and the average revenue similarly is Rupees 35,70,342. The area in Tanjore is exclusive of Poodoo-

[3] LIST OF REVENUE DISTRICTS, GROUPED TECHNICALLY, WITH AREA, POPULATION, AND REVENUE.

Technical names of groups of districts.	District.	Area in square miles.	Population.	Collection from all sources in a recent average revenue year.	Position.
				RS.	
Northern	Ganjam	8,311	1,749,604	33,01,554	To the north and east along the sea-coast on the Bay of Bengal.
	Vizagapatam	17,380	2,485,141	24,11,916	
	Godavery	7,345	1,791,512	54,51,537	
	Kistna	8,471	1,548,480	56,74,860	
East Central ...	Nellore	8,739	1,220,236	37,60,770	
	Madras	27	405,848	34,15,747	
	Chingleput	2,842	981,381	50,06,304	
	South Arcot	4,873	1,814,738	45,90,021	
	North Arcot	7,256	1,817,814	31,48,400	In the centre of the peninsula and mostly south and east of Mysore.
Ceded Districts ...	Kurnool	7,788	709,305	19,43,937	
	Bellary	5,904	736,807	34,34,599	
	Anantapore	5,103	599,889	...	
	Cuddapah	8,745	1,121,038	23,74,878	
West Central ...	Salem	7,653	1,599,595	28,12,210	
	Coimbatore	7,842	1,657,690	30,29,273	
	Neilgherries	957	65,594	1,38,708	
Southern	Tanjore	3,654	2,130,383	74,86,496	To the south, forming the south-eastern boundary of the peninsula.
	Trichinopoly	3,561	1,215,033	18,30,510	
	Madura	8,401	2,168,680	40,12,993	
	Tinnevelly	5,381	1,699,747	48,96,326	
West Coast ...	South Canara ...	3,902	959,514	22,04,630	On the Western Coast.
	Malabar	5,765	2,390,475	40,35,616	

cottah territory, the area of which is 1,101 square miles. The next two notes [4 & 5] show the districts grouped according to acquisition, and the sketch history of their acquisition and formation. Almost the whole local administration is organized with the revenue district as its unit. The chief agent of Government in each district is the Collector, who directly or indirectly controls every department, except the judicial, within the limits of the district. The Collector exercises considerable magisterial powers. The Collector of Tanjore is Political Agent for the French Settlement of Caricaul; the Collector of Malabar, Political Agent for the French Settlement of Mahé; the Collector of Trichinopoly, Political Agent for Poodoocottah; the Collector of Bellary, Political Agent for Sundoor; and the Collector of

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[4] LIST OF REVENUE DISTRICTS ACCORDING TO ACQUISITION.

Former territorial designation and date of acquisition.	Present names of districts.	Remarks.
"Northern Circars," granted by the Moghul Emperor in 1765 and by the Nizam of the Carnatic in 1766: tribute not paid after 1823.	Ganjam. Vizagapatam. Godavery Kistna	Godavery and Kistna were formerly three zillahs—Rajahmundry, Masulipatam, and Goontoor (up to 1859-60).
"The Jagheer," ceded in 1750-63.	Madras. Chingleput.	
"Ceded Districts," taken from Nizam, 1800.	Bellary. Anantapore. Cuddapah.	
Surrendered in 1800 by Nizam.	Kurnool.	
From the Nawab of the Carnatic, 1799-1801.	Nellore. South Arcot. North Arcot. Tanjore. Trichinopoly. Madura. Tinnevelly.	
Acquired from Hyder Ally and Tippoo Sultan, 1792-1799.	Salem. Coimbatore. Neilgherries Canara (South) ... ... Malabar.	Canara was divided in 1859 into two zillahs, and North Canara was transferred to Bombay in 1861.

[5] SKETCH HISTORY OF ACQUISITION AND FORMATION OF REVENUE DISTRICTS.—*Circars.*—Prior to 1859-60 the Northern Circars consisted of five zillahs or districts, but in that year the three districts of Rajahmundry, Masulipatam, and Goontoor were divided to form the present Godavery and Kistna districts. The northern districts were formerly under the Nizam's Government, and in that time the divisions were as follows; Goontoor, Condapilly, Ellore, Rajahmundry, and Chicacole. They came finally into possession of the British in the year 1823, by the payment to the Nizam's Government of Rupees 11,66,666 in lieu of an annual tribute. When these districts fell into the hands of the East India Company they consisted chiefly of large estates held by renters or zemindars; of lands called 'Havelly,' which were the old demesnes or private estates of former rulers; and of tracts near the principal towns which had been resumed by the Mahomedan governors of the districts, and appropriated for the support of their numerous bands of soldiers and public establishments. For some years prior to 1855-56 these Northern Circars were under the charge of a separate commissioner, but each district had then also its own revenue and judicial establishments. The appointment of commissioners of the Northern Circars was abolished in June 1856. The two talooks of Rekapully and Bhadrachellam belonged formerly to the Upper Godavery district of the Central Provinces. They were ceded to the English by the Nizam by the eighth article of the treaty dated 26th December 1860, and became British territory on the 31st December 1860. They were transferred to this Presidency on the 1st April 1874, and now form part of the Madras Godavery district. They have an area of 885 square miles. (2) *Carnatic.*—The part of the Presidency usually known as the Carnatic was originally formed of three divisions, namely, northern, consisting of a portion of the Nellore district; central, extending from the Coleroon to the Pennair river, and containing a portion of Trichinopoly, Chingleput, North Arcot, South Arcot, Madras, and Nellore districts; and southern, consisting of a portion of the Trichinopoly and the whole of Tanjore, Tinnevelly, and Madura districts. These districts came into the possession of the British between the years 1799 and 1801. In the year 1859-60 the two districts of Madras town and Chingleput were amalgamated into a single district, the collection of sea customs revenue being separately provided for. In the year 1870 the Chingleput district was again divided as before, leaving the administration of the Madras town district in the hands of the Sea Customs Collector. The Chingleput district was obtained from the Nawab of Arcot in 1763 in return for services rendered to him and his father by the company. The grant was confirmed by the Great Moghul in 1765, and for a long time the district was known as the 'Jagheer' of the East India Company. The site of the town of Madras was obtained in the year 1639, by a grant from the descendants of the Vijianugger rulers, subsequently confirmed by the Moghul Government. (3) *Ceded Districts.*—The Ceded Districts of Bellary and Cuddapah were surrendered to the English by the Nizam in the year 1800 for the maintenance in perpetuity of a body of troops known as the Hyderabad Subsidiary Force, and as payment for troops furnished during the Mysore wars. The old Bellary district was on the 5th January 1882 divided into two districts by the creation of a new collectorate, Anantapore, for purposes of administrative convenience. The town of Anantapore, the head-quarters of the collectorate, was in former days the head-quarters of the Ceded Districts. The talooks which have been separated from the Bellary district and which now constitute the Anantapore district are—Anantapore, Dharmavaram, Penoocondah, Madaksira, Hindoopore, Gooty, and Tadpatry. The sub-collectorate of Bellary ceased to exist on the creation of this district, but the local limits of the jurisdiction of the District Judge of Bellary were not varied by these changes, so that practically the present Anantapore and Bellary districts still remain one district for judicial purposes. In 1800 the rights of sovereignty exercised by the Nizam over the Kurnool country as Soobahdar of the Deccan became vested in the East India Company. The Nizam, in the treaty of partition, gave over to the British all his possessions south of the Toongabudra and Kistna rivers below their junction. At this time the ruler of the Kurnool country paid a yearly tribute of one lakh of rupees to the Nizam. In 1839 the Kurnool district, through the rebellion of the then ruler of the country, was placed under British administration. (4) *Salem and Coimbatore.*—The districts of Salem and Coimbatore came into British possession, the former in 1792 by the treaty of Seringapatam, and the latter in 1799 after the final defeat of Tippoo and the partition of his territory between the British, the Nizam, and the legitimate successor to the Mysore Government, the late Maharajah of Mysore. (5) *Neilgherries and Wynaud.*—The Neilgherry Hills, formerly

South Arcot, Special Agent, French Settlements, and Political Agent for Pondicherry. The Collectors of Ganjam, Vizagapatam, and Godavery are also Agents to the Governor in their respective districts, corresponding in that capacity direct with the Government. The Collector of the Neilgherries is an additional Sessions Judge for his district; and the Collector of Madras holds simultaneously the appointments of Collector of Sea Customs and Protector of Emigrants. The accompanying map [6] shows the situation of the Revenue Districts. Each district is subdivided into talooks, numbering 157 Government talooks in all. The talook answers simultaneously to the revenue pergunnah and police thannah of Bengal. The 157 Government talooks exclude the area in zemindarries, though some of the larger zemindarries are themselves divided into talooks. Deducting the two exceptional districts of Madras and the Neilgherries, an average talook may be said to contain a population of about 150,000, a land-revenue of about Rupees 2,50,000, and an extent of about 700 square miles. The head of each talook is a Tahsildar, nearly always a native in the plains, who is an official of great influence and authority; the Tahsildar has also magisterial powers. Each talook comprises from 50 to 100 villages, which constitute the ultimate unit for administrative purposes. There are in all 27,181 villages, excluding those in permanently-settled estates. The hereditary village officials are utilized to perform minor public offices, revenue and judicial. The heads of villages and village accountants collect and account for all revenue, rates, and taxes, within their respective villages.

65. Other Divisions.—Though the judicial and revenue district, the term being nearly always synonymous, is the main unit of the administration; there are some minor variations. The Revenue Survey and Revenue Settlement departments work in specially selected areas. For military purposes the Presidency is divided into two divisions and three districts. The Salt department has a northern and a southern division; each under a Deputy Commissioner, with three sub-divisions for the northern and four for the southern, under Assistant Commissioners. The Abkarry department is under process of re-organization, and has at present no divisions. The Public Works Department has six circles, each under a Superintending Engineer, comprising thirty-two divisions in charge of Executive Engineers. For educational purposes the Presidency is divided into seven divisions each under an Inspector of Schools. As regards the Marine Department, the Master Attendant is in charge of all the ports in the Presidency, a Port Officer being stationed at the principal out-ports. Under section 5 of India Act III of 1877, the Indian Registration Act, the Local Government can form districts and sub-districts for the purposes of registration, and can from time to time alter the limits of such districts and sub-districts; the arrangements made are almost strictly conterminous with revenue divisions.

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a talook of the Coimbatore district, was constituted an entirely separate district under Madras Act I of 1868. Under that Act the hills were placed in charge of a Commissioner who exercised the powers of a Sessions Judge in criminal matters, of a Subordinate Judge in civil suits, and of a Collector of a district in revenue matters. An Assistant Commissioner was also appointed, having the position of a Head Assistant Collector, similarly modified. Act I of 1868 was repealed by Madras Act II of 1881 which came into force on the 1st February 1882, and under this Act the powers of the Commissioner were reduced. He was relieved of civil jurisdiction and for the purposes of civil justice the district was included in the jurisdiction of the District Court of Coimbatore, a Sub-Judge's Court being furnished at Ootacamund with jurisdiction throughout the Neilgherry district, and with powers of a Court of Small Causes for suits up to Rupees 500. In criminal matters the hills under the same Act became part of the Coimbatore Sessions Division; the Collector however was in this case appointed Additional Sessions Judge and invested with power to try all offences not punishable with death or transportation for life, so that none but the most serious offences need be tried in Coimbatore. By the same Act the Cantonment Magistracy also at Wellington was abolished, both in its civil and criminal jurisdiction. The Wynaud upland country came into the possession of the British by the supplementary treaty of 29th December 1803 with Mysore. Under this treaty the East India Company, while ceding certain talooks to Mysore, obtained a cession of an equivalent number, nearly the whole of which now form part of this Presidency. Formerly the whole was part of Malabar district. On the 31st March 1877 three amshoms or parts of talooks of the south-eastern division were added to the then commissionership, now collectorate of the Neilgherries. The remainder makes one division of the Malabar district, with head-quarters at Manantoddy. (6) *West Coast.*—The two districts of Malabar and Canara, on the western side of the ghauts, fell into the possession of the British in 1792 and 1799, respectively. Canara was in 1859 divided into North and South Canara and in 1861 North Canara, with an area of 4,235 square miles, was transferred, for convenience of administration, from the Madras to the Bombay Presidency. The talook of Coondapore, which formerly belonged to North Canara, is now attached to South Canara. (7) *Further Details.*—For further details as to the acquisition of the present revenue zillahs, see the article on History, or Vol. II, App. XLII, which tabulates the information regarding all the acquisitions within the Presidency.

[6] Spellings authorized by Government occurring in Map showing Revenue Districts.*—Anantapur; Arcot, North; Arcot, South; Bellary; Canara, South; Chingleput; Cochin; Coimbatore; Cuddapah; Ganjam; Godávari; Kistna; Kurnool; Madras; Madura; Malabar; Nílgiri; Nellore; Pondicherry; Pudukóta; Salem; Tanjore; Tinnevelly; Travancore; Trichinopoly; Vizagapatam.


MAP
Shewing Revenue Districts
with
Native & Foreign States
Scale 1/150 th Inch to the Mile
or 1/6336000 of nature
50 0 50 100 150 MILES
CENTRAL PROVINCES
BENGAL
GANJAM
VIZAGAPATAM
GODAVERY
NIZAM'S DOMINIONS
VIZAGAPATAM
GODAVERY
KISTNA
KURNOOL
BELLARY
BOMBAY
ANANTAPORE
CUDDAPAH
NELLORE
MYSORE
NORTH ARCOT
CHINGLEPUT
MADRAS
SOUTH CANARA
SALEM
SOUTH ARCOT
Pondicherry (French Territory)
Mahe (French Territory)
MALABAR
NEILGHERRY
COIMBATORE
TRICHINOPOLY
TANJORE
Caricaul (French Territory)
POODOOCOTTAH (Native State)
COCHIN Native State
TRAVANCORE Native State
MADURA
TINNEVELLY
CEYLON
LACCADIVE ISLANDS
MALDIVE ISLANDS
75
80
85
20
15
10

SPECIAL AGENCIES.

66. VIZAGAPATAM AGENCY.—Physically and geographically the Vizagapatam Agency [1] tracts may be divided into four well-marked sections. The first is the rich tract lying east of the main line of eastern ghauts, formed by the valleys of the Nagauvaly and the Vamshadhara with their surrounding and intervening hills; comprising the talooks of Goonapore, Royagooda, and Bissemcuttack, and inhabited entirely by Khonds under Ooriyah "patros." The whole of this tract belongs to the Jeypore estate, but from parts of it held by the rajahs of Singapore and Bissemcuttack, the Maharajah only draws a yearly tribute. The feudatory rajahs are bound to do homage to him at the Dusserah. The second consists of the eastern ghauts themselves and the plateau immediately adjoining them on the west, which averages 2,500 feet high, and is studded with mountains, some of which rise to 5,500 feet. The northern part of this, which belongs to the Jeypore estate, is mostly well cleared and cultivated. The southern part is heavily wooded and sparsely populated; it consists of Hill Madgole and the hill mootahs of Golcondah. The people of the north are Khonds; those of the south are a Teloogoo-speaking race of "Condah Doraloo." The whole of this tract drains into the Godavery; the northern

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[1] SKETCH HISTORY OF THE VIZAGAPATAM AGENCY.—(1) *Mr. Russell's report*, 1836.—In 1835 Sir Frederick Adam, Governor of Madras, visited the Northern Circars, and recorded in a minute his opinion as to the expediency of exempting the hill zemindarries from the general regulations. Mr. Russell, Special Commissioner in the Northern Circars, after minute inquiries into the causes of disturbances then lately suppressed, and the policy needful for adoption in order that the recurrence of such outbreaks might be prevented, reported finally on this subject in 1836 and 1837. He observed that a system which was adapted to districts where the authority of Government is paramount could not fail to be inapplicable to mountainous tracts, where, up to that period and after a lapse of more than thirty years, the Government had in effect no police and no power. He proposed, as the course best calculated both to add to the weight and influence of the local authority, and to remove existing causes of irritation on the part of the hill zemindars arising from the unbending form of regulation procedure, that those tributaries should be exempted from the jurisdiction of the ordinary courts and placed exclusively under the Collector of the district, in whom should be vested the entire administration of civil and criminal justice, under such rules for his guidance as might be prescribed by orders in Council. This proposal was approved by the Government and forms the basis of India Act XXIV of 1839. It was further enacted that the Collector, as Agent to the Governor, should have the power of making commitments by warrant, which is possessed by the Governor in Council by virtue of Regulation II of 1819, subject always to the orders of Government on each case. (2) *Changes in extent of the Agency.*—As originally constituted, the Agency comprised seven-eighths of the district, including, in addition to its present area, the zemindarries of Vizianagram, Bobbily, Palcondah, Madgole, Golcondah, Saulore, and Punchipenta; but its control of the great zemindarry of Jeypore, now its most important charge, was until 1863 little more than nominal. It was visited occasionally by officers from Vizagapatam when disturbances arose, as in 1848; and from 1855 to 1861 it was explored and reported upon by the Special Agency for the suppression of Meriah sacrifices. In 1863, in view of the improved condition of the district, the Vizianagram and Bobbily zemindarries and Palcondah were withdrawn from the charge of the Agency; and in the same year it was determined to introduce British administration into Jeypore, an Assistant Agent being located there, with 4 sub-magistrates subordinate to him; while that portion of the estate lying east of the main line of ghauts was placed in charge of the Assistant Agent at Parvatipore, with sub-magistrates at Goonapore and Royagooda. At the same time a police force was introduced, and a Superintendent of Police was located at Jeypore. In 1865, owing to the great increase of work entailed by this change, the limits of the Agency were further contracted and have since remained unaltered. It comprises now the zemindarry of Jeypore, those portions of Vizianagram, Madgole, Punchipenta, Cooroopaum, and Merangy zemindarries which are situated within the hills; also the hill mootahs of Palcondah and Golcondah. (3) *Disorders in* 1864.—Certain proceedings of a police inspector brought on a petty insurrection in the year 1864 among the Sowrahs, a wild race inhabiting an outlying corner of the Agency, on the borders of Ganjam. After a brief struggle, the rising was suppressed with the assistance of the Ganjam police. (4) *Progress in Jeypore.*—From the first occupation of Jeypore steady efforts have been made to civilize the country by opening up roads, a yearly grant for the purpose being made by Government. The old Brinjarry tracks have been improved and rivers roughly bridged with timber, operations being extended from year to year as funds were available. In 1869 the collection of the abkarry revenue, which had previously been leased out for a small amount to the Rajah's Diwan, was undertaken by the Assistant Agent, and in a few years a considerable addition was made to the small revenue levied from Jeypore. In this year also the Government sanctioned the transfer of the divisional head-quarters from Jeypore to Koraputt, a village some 15 miles distant and about 1,200 feet higher in an open, and, it was hoped, more healthy country. (5) *General progress.*—The Agency sub-magistrates have been invested with the powers of a district moonsif for the settlement of civil suits. A commencement was made with Goonapore in 1867, and within the next year or two all the Agency sub-magistrates were so invested. From 1870 to 1879 the Agency tracts made steady progress, and with the exception of an occasional petty disturbance among the Kootiah Khonds on the Ganjam frontier the country remained quiet. From time to time complaints of undue enhancement of rents were made against the Jeypore Rajah's officials; these usually, as in the case of Cotapaud in 1870 and of Mulkangherry in 1872, resulted in a revision of the assessment under the supervision of the divisional officer. (6) *The Rumpa disturbances.*—In 1879 the Rumpa "fitoory" (conspiracy) broke out in the Godavery district and soon spread into the adjoining Golcondah hill tracts; the police stations of Addateegela and Chodavaram were burnt, and it was found necessary to march a large body of police and subsequently of sepoys into the hills. The contest went on all through the year, and early in 1880 spread to Mulkangherry and to Hill Madgole. Towards the middle of 1880 all the principal rebels were captured and the country began to resume its ordinary condition. These risings were led by refugees from Rumpa, but in Mulkangherry at least they derived their force from the fact that, owing to ill-treatment by the police and extortion on the part of the rajah's officials, the population was ill-affected towards the Government. The hill pariahs, usually the money-lenders of their neighbourhood, came in for a share of the ill-feeling, and many of them were murdered, often with sacrificial rites. Towards the end of 1880 the rising was suppressed. During the disturbances Mr. Sullivan visited the scene of their occurrence to report on the matter, and in 1881 Mr. Carmichael visited the Northern Circars as Special Commissioner to determine questions arising out of it. The principal changes resulting from Mr. Carmichael's visit were a fresh settlement with the hill mootahdars of the Golcondah hill tracts; the suppression of several outlying police stations and concentration of the force; and the creation of an extra assistant superintendentship of police and of three new sub-magistracies at Bissemcuttack, Pottinghy, and Padair. The Golcondah hill mootahs of Dootcherty and Gooditeroo were transferred to the Godavery Agency. Since 1882 there have been no administrative changes of any importance.

portion through the Indrauvaty, the southern through the Severy and the Sillair. For administrative purposes this tract comprises the talooks of Koraputt, Pottinghy, and Padair, while the Golcondah hill mootahs belong to the Golcondah (or Narsapatam) talook. The third consists of the talooks of Jeypore and Navarungapore; the latter including what are known as the 3 northern "ghurs," have an average level of 1,800 feet above the sea. The whole of this tract has been once densely wooded with "saul;" in the northern part the saul wood has been but little cleared, but elsewhere it is intersected with broad expanses of paddy cultivation. The extreme northern portion drains into the Mahanuddy through the Tel; the centre into the Indrauvaty, and the south into the Severy. The northern ghurs are inhabited almost entirely by Gonds; the rest of the tract by a variety of races, Bhotras, Bhoomiyas, Halabas, Ronas, &c. The Mulkangherry talook is the fourth, lying between the Severy and the Sillair, with an average height above sea-level of 600 feet, gradually sloping down towards the Godavery. This tract is very sparsely peopled; the population in the south is mainly Kooi, speaking a language of their own; further north, Mattiyas, Bonda Porjas and other varieties of Khonds are found. The villages of Mulkangherry and Coroocondah are held by Ooriyah paiks.

67. The only Act specially relating to and affecting the Agency is India Act XXIV of 1839, giving civil and criminal jurisdiction to the Agent and his Assistants. India Act XIV of 1874 (the Scheduled Districts Act) and India Act XV of 1874 (the Local Laws Extent Act) both specify the Agency in their schedules; so that the Agency is in that sense a "scheduled" tract. But in the former case, as no notification under section 3 regarding laws in force or otherwise has yet been issued, the Act cannot be said to be applicable; see section 1 of the Act. The Vizagapatam Agency is still regulated by the Act of 1839, the effect of which has been described in the article on Civil Divisions. The revised rules framed by Government under Act XXIV of 1839, dated 14th July 1881, and published in the Fort St. George Gazette, on 19th July 1881, are shown below. [2]

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[2] RULES FOR THE GUIDANCE OF THE COLLECTOR OF VIZAGAPATAM, WITHIN THE SCHEDULED TRACTS OF THAT DISTRICT. *Criminal Justice.*—RULES I to VI, relating to Criminal Justice, cancelled. Vide Proceedings of Government, dated 6th January 1863, No. 10, declaring the Code of Criminal Procedure to be in force. *Civil Justice.*—RULE VII, CLAUSE 1.—Every opportunity shall be taken by the Agent and his subordinates to get the hill people to resort to Heads of Villages and Village Punchayets, or to District Punchayets for the settlement of their claims against one another (vide Regulations IV, V, and VII of 1816; the last-mentioned Regulation being still in force in the Ganjam and Vizagapatam Agencies, though repealed in the rest of the Presidency by the Madras Civil Courts Act III of 1873). CLAUSE 2.—No suit regarding any claim to land revenue bestowed or continued by the British Government on feudatory tenure being cognizable by the Courts, the investigation and disposal of such cases are provided by Rule X, Clause 3, infra. RULE VIII.—Estates of minors and other incapacitated persons will be managed by the Agent, with the sanction of Government, under the orders of the Board of Revenue, without Regulation V of 1804 being made specially applicable to the Agent's jurisdiction. RULE IX, CLAUSE 1.—The Agent is empowered to appoint any of his principal Native Officers, or, with the sanction of Government, any other duly qualified persons, to exercise in such places, and within such portion of the jurisdiction assigned to the Agent as he may consider proper, the judicial and other powers vested in District Moonsifs by the Madras Code, and the Acts applicable to that Presidency; provided that they shall not have cognizance of any suit in which any Zemindar or Bissoye, or other Feudal Chief may be concerned. CLAUSE 2.—The Court Fees Act extending to the whole of British India, the valuation of all suits instituted before the Agent, or his subordinates, will be made according to the provisions of section 7 of that enactment. CLAUSE 3.—The Agency Moonsifs shall not, however, have cognizance of any suits exceeding in value 500 rupees; nor of any suit in which any Zemindar, Bissoye, Mootahdar, or other feudal Hill Chief may be concerned; nor of suits in formâ pauperis. RULE X, CLAUSE 1.—With the exception, firstly, of the particular suits described in the preceding rule, which are cognizable by the Moonsifs, and, secondly, of the suits described in clauses 2 and 3 of the present rule, all suits shall be instituted in the Court of the Divisional Assistant. Provided always that the Divisional Assistant may transfer any civil suit, of a value not exceeding 500 rupees, instituted before him to any Moonsif, within his division, for trial. CLAUSE 2.—Suits exceeding Rupees 5,000 in value shall be instituted in the Court of the Agent, who may, however, when he thinks proper, refer any such suit for the decision of the Divisional Assistant. CLAUSE 3.—On the death, resignation, or removal of any proprietor, the Agent shall personally investigate all claims to the succession to Hill Zemindarries, or other landed possessions held on feudatory tenures; and shall, through the Board of Revenue, submit the result of his inquiry for the orders of Government, who, should there be more than one claimant, will exercise their inherent right to select as successor the one among them most acceptable to the people, and best qualified to fulfil the duties of the situation. But this shall not affect the succession to estates held under the Sunnud i milkeut istimrar. CLAUSE 4.—For the trial and determination of suits coming before them, the Agent and his Divisional Assistants are hereby vested with the same powers as are vested in the District and Subordinate Courts, or in the Collector's courts of the Madras Presidency, respectively, subject to the modifications in these rules contained. CLAUSE 5.—The Civil Courts of each grade shall receive, try, and determine suits, hereby declared to be cognizable by those Courts, if, in the case of suits for land or other immovable property, such land or property shall be situate within the limits to which their respective jurisdictions may extend, and in all other cases, if the cause of action shall have arisen, or the defendant at the time of commencement of the suit shall dwell or personally work for gain within such limits. RULE XI, CLAUSE 1.—The Agent is authorized at his discretion to appoint such number of Pleaders in his own court, or in the courts of his Assistants and the District Moonsifs, as may from time to time appear to him necessary. But Zemindars within the Agency tracts are at liberty to conduct their business in the Courts either in person or by their own special Mookhtiars; and suits for the remuneration of such Mookhtiars shall not be received or filed in any Court. CLAUSE 2.—The Pleaders will be entitled to receive a fee according to the provisions of Regulation XIV of 1816 of the Madras Code. The Agent shall be competent to punish any misconduct of a Pleader by fine not exceeding 50 rupees, leviable as an arrear of land revenue, or by cancellation of his sunnud, or both. RULE XII, CLAUSE 1.—Except where otherwise provided in the following rules, the trial of civil suits shall be conducted by the Agent and his subordinates in the

A notification of the Board of Revenue, dated 29th July 1873, published in the Fort St. George Gazette, of 5th August 1873, permitting the home manufacture of fermented liquor for bonâ fide domestic consumption in the Agency tracts, has also the force of law. The law concerning Vizagapatam Agency, under subject-heads, is shown in Vol. II, App. LIV, under the title of Special Agencies.

68. The Agent, who is Sessions Judge for the Agency tracts and also Collector of the littoral of Vizagapatam, is aided by a Principal Assistant, whose Agency charge comprises the Golcondah hill mootahs; a Senior Assistant, under whose charge are the Goonapore, Royagooda, and Bissemcuttack talooks, forming part of the estate of the Maharajah of Jeypore and of his feudatories, the Rajahs of Singapore (Calyaun) and Bissemcuttack; and a Special Assistant whose charge is Jeypore proper, i.e., west of the ghauts, and a general duty Deputy Collector, whose charge comprises the hill tracts in the Palcondah talook. There are nine Agency sub-magistrates proper, and parts of the Agency tracts lie within the charges of some of the low country sub-magistrates. Jeypore proper has a separate Superintendent and Assistant Superintendent of Police, while those parts of the Agency in the charge of the Principal and Senior Assistant Agents form for police purposes a part of the Vizagapatam district. In the Agent and his Assistants vest all judicial

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manner at present observed, viz. :—CLAUSE 2.—The parties or their Pleaders may tender, at the first hearing of the suit, written statements of their respective cases on stamp paper, prescribed for petitions to the Court when a stamp is requisite for petitions, but no written statement shall be received after the first hearing of the suit, unless called for by the Court. CLAUSE 3.—The Agent or his subordinates may at any time before final judgment call for a written statement, or an additional written statement, from any of the parties on plain paper. CLAUSE 4.—Written statements shall be as brief as the nature of the case will admit, and shall not be argumentative, nor by way of answer one to the other but each statement shall be confined, as much as possible, to a simple narrative of the facts which the party, by whom or on whose behalf it is made, believes to be material to the case, and which he believes he will be able to prove, if called upon by the Court. CLAUSE 5.—The Court may reject a written statement which may appear to be argumentative, or unnecessarily prolix, or containing matter irrelevant to the suit, and the party whose written statement is rejected for any of these causes shall not be permitted to present another written statement, unless it shall be expressly called for or allowed by the Court. CLAUSE 6.—If at the first hearing of a suit it shall appear that the parties are not at issue on any question of law or fact the Court may at once give judgment. CLAUSE 7.—When the parties are at issue on some question of law or fact, if the Court shall be satisfied that no further argument or evidence than such as the parties or their Pleaders can at once supply is required upon any such of the issues of law or fact as may be sufficient for the decision of the suit the Court, after hearing such argument and evidence, may proceed to determine such issue or issues, and if the finding thereon is sufficient for the decision, may pronounce judgment accordingly; otherwise the Court shall postpone the further hearing of the suit, and shall fix a day for the production of such further evidence, or for such further argument as the case may require; provided that if either party shall fail, without sufficient cause, to produce the evidence on which he relies, the Court may at once give judgment. RULE XIII.—The Rules prescribed by the Code of Civil Procedure for the examination of witnesses in appealable cases will apply to all civil trials held before the Agent and his subordinates. RULE XIV.—As soon as judgment is declared in simple suits for recovery of money, the accompanying form will be filled up, describing the suit and judgment, and shall be delivered to the successful party. RULE XV, CLAUSE 1.—Parties, by mutual consent, shall be at liberty at any stage of the proceedings to settle all suits by razeenamah, upon both parties making it a record in the Court where the suit is filed. CLAUSE 2.—In all suits settled by razeenamah, the plaintiff shall be entitled to receive back half the amount of stamp duty paid on the plaint, if the razeenamah shall have been presented before any hearing of the suit had been held. RULE XVI.—From decrees in all original suits, disposed of by Moonsifs, an appeal shall lie to the Divisional Assistant, and from decrees in all original suits disposed of by the Divisional Assistants, an appeal shall lie to the Agent; provided the petition of the appeal be preferred within six weeks from the date of passing the decree, or the appellant can show just and reasonable cause to the satisfaction of the Appellate Court for not having preferred it within that period. RULE XVII.—The appellate decision of Divisional Assistants shall be final, provided that the Agent shall be at liberty, for special reasons to be recorded, to admit a special appeal in his Court within the time prescribed above for the admission of a regular appeal. RULE XVIII.—When an appeal shall be preferred from the Moonsifs' or the Assistants' decisions, it shall not be necessary to summon the respondent in the first instance, but forthwith the original record of the proceedings in the case shall be called for; and if, after the perusal of the record of the original suit and petition of appeal, the officer hearing the appeal shall see no reason to alter the decision appealed from, it shall be competent to him to dismiss the same, with an endorsement on the petition of appeal, that it has been so dismissed. Should the officer hearing the appeal, on the contrary, see cause not to adopt such proceeding, he will cause a notice to be issued to the respondent, and proceed therein as directed by the Code of Civil Procedure. RULE XIX.—The Agent, or Assistant, as the case may be, is empowered to call for further evidence in any case appealed, or to refer the suit back to the officer who originally decided it for further evidence and for a decree de novo. The Agent is likewise empowered, on the application of any party in a suit decided by a Moonsif or an Assistant, but not appealed, to direct a review of judgment; provided sufficient cause be shown, and the application be preferred within six weeks, or satisfactory cause given why that period has been exceeded; and the Agent is further competent to authorize a Moonsif, or an Assistant, to review his own judgment on sufficient grounds assigned; and also to remove to his own, or any other Court in the jurisdiction, by precept under his official seal and signature, any suit which may be depending in a lower Court recording his reasons for so doing. RULE XX.—All decrees passed by the Agent, on appeals from decrees of his subordinates, shall be final, the Sudder Court having the power, on special grounds, to require him to review his judgment, as directed by them. RULE XXI.—From all decrees upon original suits passed by the Agent (with the single exception specified in the next following rule), an appeal shall lie to the Sudder Court to be disposed of as provided in section 6, Act XXIV of 1839; provided such appeal is preferred either to the Agent or the Sudder Court within three months after the Agent's decision; or after that period, if sufficient cause can be assigned to the Sudder Court for any delay which may have occurred by petition or the prescribed stamp, and subject to the other rules required in other appeals to the Sudder Court, as provided in the Madras Code and Acts applicable to that Presidency. RULE XXII.—From decrees of the Agent in suits wherein the landed possession of a Zemindar, Bissoye, or other Feudal Hill Chief may have formed the subject of litigation, an appeal will lie to the Governor in Council alone, who may refer any such appeal for the decision of the Sudder Court, provided that the decree of the latter Court shall not be carried into execution without the permission of the Governor in Council. RULE XXIII.—In cases in which a witness may reside at a considerable distance, or may be unable from sickness or other cause to attend the Court, his deposition may be taken by the nearest Divisional Assistant or Moonsif on written interrogatories to be transmitted by the Court. RULE XXIV.—All civil process of the

power, civil and criminal. Their duties consist in the administration of the revenue, including opium and abkarry monopolies (the privilege of manufacturing fermented liquor without payment of duty is allowed to the hill people); the making and maintenance of roads and other public works; the promotion of education; and last but not least the supervision of the conduct of the Maharajah and his officials in Jeypore and that of the mootahdars and zemindars elsewhere, with a view to protecting ryots from unauthorized demands, and for other purposes. As observed by the late Special Commissioner in his report:—" The Maharajah of Jeypore is but "a zemindar under the permanent settlement; but owing to the vastness of his "estate and the exceptional nature of its population, it has been usual to treat him "as if he were a sort of feudatory chief. A disturbance in the hills under his "control is so serious a matter that the Governor's Agent has never hesitated "to warn him when his servants were engaging in a perilous or overbearing "course, or to call upon him to remove any unscrupulous or mischievous person "about him."

69. GANJAM AGENCY.—The Agency tracts of the Ganjam district [3] cover an area of about 3,500 square miles and have a population of 246,591. The Collector of Ganjam has jurisdiction over the whole under the designation of the Agent to the

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Courts situated within the Agent's jurisdiction shall be served through the headman of the village or estate where the defendant may reside, or through the Jemadar of the Court by whom it shall be returnable on a fixed day, with an endorsement, certifying the manner in which it may have been served. RULE XXV.—As a general rule a party, in whose favour a decree is passed in suits for money claims, may obtain execution thereof by the production of the document referred to in Rule XIV and without any formal petition; but the Agents are at liberty, when they deem it advisable, to have execution applied for in the manner at present observed. RULE XXVI, CLAUSE 1.—With the exception of the Court of the Agent, which shall be at liberty in the execution of decrees to employ an Assistant or Moonsif, all decrees of other Courts within his jurisdiction shall be carried into effect by the Court by which the suit may have been originally decided. CLAUSE 2.—Decrees shall be executed by an order addressed to an officer of the Court, or the headman of the village in which the debtor may usually reside, or where the property may be situated. If the decree be for personal property, or a sum of money by causing the specific thing to be delivered, or the value of it, or the sum of money decreed to be levied by the public sale by auction of a sufficient portion, or, if requisite for the satisfaction of the decree, the whole of the lands, houses, and all effects, either real or personal, belonging to the party against whom the judgment may have been given, or by the attachment of his person, or, where it may be necessary, both by the sale of his property and effects, and the attachment of his person. But no sale of any landed property attached in execution of a decree shall be legal, unless the authority of the Governor's Agent for such sale shall have been previously obtained. CLAUSE 3.—Decrees against such Rajahs and other Chiefs as the Agent may except from the ordinary process, shall be executed under such rules as may be specially provided, with the sanction of Government. RULE XXVII, CLAUSE 1.—The Agent and his Assistants are authorized at their discretion to refer any suit, or special questions in a suit, for examination and judgment by a Punchayet, to consist of three or five persons, to be selected by the Agent or Assistant, after the plaintiff and defendant have had notice, and the witnesses have been assembled. The plaintiff and defendant, or their Pleaders or Mookhtiars, shall each be permitted to challenge any members of the Punchayet, and on giving sufficient reason for the challenge, another person or persons shall be selected to supply his or their place. Punchayets assembled under these rules shall be guided by the enactments for District Punchayets, contained in the Madras Code of Regulations and Acts applicable to that Presidency, except as they are modified by these rules. When a Punchayet has been nominated the Agent, or his Assistant, shall immediately direct a Goomasta to attend the Punchayet, whose duty it shall be, under the direction of the Punchayet, to record their proceedings and award. The Agent, or Assistant, shall then direct them to proceed forthwith to some convenient place in his Cutcherry, or adjoining it, to investigate the matter at issue. When the pleadings shall have been closed and evidence taken, the Punchayet shall direct the Goomasta and parties to retire, and shall consult and decide on their award; and when they have come to decision they shall recall the Goomasta to record the award, which (award) having been duly attested with their signature, they shall deliver to the officer appointing the Punchayet by whom, if approved, a decree in conformity therewith shall be passed, which decree in cases where the Punchayet has been assembled by a subordinate shall, previous to its execution, be submitted to the Agent, who shall either confirm, modify, or reverse the award, or remand the case for further investigation, or reinvestigation by a Punchayet, or otherwise as might to him seem expedient. RULE XXVIII.—The Agent will submit to the Sudder Court half-yearly statements of the number of causes filed and disposed of by himself and his Assistants, and by the Moonsifs, prepared in such form as may be by them prescribed. *Revenue Rules.*—RULE XXIX, CLAUSE 1.—In conducting their local duties in the Revenue Department, the Agents of the Governor will be guided by the rules hitherto in force, and exercise the same powers as are vested by Regulation in the Collectors of land revenue, both as regards the realization of the public revenue, and the trial of the public servants charged with malversation and corruptions. CLAUSE 2.—The Agents and their Assistants will continue in their Revenue capacity, subject to the control and orders of the Board of Revenue. CLAUSE 3.—It shall not, however, be incumbent on the Board of Revenue to interfere, except in matters referred to them by the Agent, unless a strong necessity for such interference should appear, and in cases of the nature described in Regulation IX of 1882, tried by the Agents, a record of the proceedings is dispensed with, and a full explanation by letter only will be required. *General Rules*—RULE XXX.—All process, civil or criminal, issued at the instance of any authority situated beyond the Agent's jurisdiction, to or against any person subject thereto, or situated therein, shall be forwarded by letter to the Agent, who shall execute the same as if it were his own process, returning the said process by letter to the authority from whom it issued, duly endorsed by his proper officer, showing what had been done thereon. RULE XXXI.—All petitions against the proceedings of the Agent must, in the first instance, be submitted to Government, and will be referred, when necessary, either to the Court of Sudder and Fowjdarry Adawlut, or the Board of Revenue, as the case may be. RULE XXXII.—Reference will be made by the Agent to Government in all cases not provided for by the rules, and whenever it may be expedient, the opinion of the Sudder and Fowjdarry Adawlut, or of the Board of Revenue, as the case may be, will be required.

[3] SKETCH HISTORY OF THE GANJAM AGENCY.—(1) *Early history, till* 1832.—The three Kimedy Maliahs formerly all belonged to the Rajah of Parlakimedy. In 1607 he gave to a younger son the Pedda and Chinna Kimedy portions; in 1776 these were separated, the younger branch of the Pedda Kimedy Rajah's family getting the Chinna Kimedy Maliahs. The Cuttingia Maliahs originally belonged to the Bodagooda Rajah, who appointed an ancestor of the present chief as his Taut Rajah over the Cuttingia zemindarry. It was only in 1868 that a sunnud was given him as an independent chief. His annual payment is a "nuzzer" of Rupees 50. The first authentic accounts of the remaining Maliahs find their inhabitants semi-vassals of the chiefs whose territorial names they bear. They afterwards came to

Governor at Fort St. George in Ganjam under Act XXIV of 1839. Parts of them are portions of the divisions of the Principal and Senior Assistant Agents; the remainder is the division of the Special Assistant Agent. The Principal Assistant has the Parlakimedy Maliahs. The Pedda Kimedy, Jalantra, Mundasa, Jarada, Soorangy, and Boodaurasinghy Maliahs are under the Senior Assistant. These

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be included in these zemindarries, though it was only near the beginning of this century that the northern half of the Goomsoor Maliahs transferred its allegiance from Boad to Goomsoor. Except as places where human sacrifices were performed, and a pestilential climate prevailed, nothing was known of them till the disturbances in Parlakimedy in 1832 and in Goomsoor in 1836. (2) *Mr. Russell, Special Commissioner.*—In 1832 the Bissoyes, or hill chiefs of Parlakimedy, were concerned in a conspiracy against a manager of the estate, who was obnoxious to them. This state of insurrection had been chronic since 1805. Mr. Russell, First Member of the Board of Revenue, was therefore appointed Special Commissioner to settle matters. His labors were not concluded till April 1834, and then only the Bissoyes' forts above ghauts had been occupied by troops. In this affair Major Baxter in command of the troops died from the effects of an arrow wound. The Parlakimedy disturbance was hardly over in the south when a similar disturbance arose in Goomsoor owing to the Rajah refusing to pay his arrears of revenue. Mr. Russell was appointed again as Special Commissioner. The Rajah retired to the Maliahs with his treasure, and in February 1836 the troops followed him there. This is the first time that the British came in actual contact with the Khonds. Though they refused to give up the Rajah, hostilities with them did not commence till the sepoys by their excesses had led the Khonds to make reprisals. The only success they had was the destruction of two officers and thirteen men on the Coormingyah pass. Resistance was completely overcome by the beginning of 1837. The Rajah had died at Oodayagherry very soon after his arrival in the hills, and Dora Bissoye, a Benniah Khond, had carried on the struggle till its conclusion. Goomsoor and Sooradah, which by purchase was under the Goomsoor Rajah, were then resumed, the zemindarries being forfeited. The treasure, said to amount to Rupees 40,000, which the Goomsoor Rajah entrusted to the Khonds is said to be still honorably kept by them. (3) *Meriah rite and institution of the Agency under Act XXIV of* 1839.—Mr. Russell's report on these events drew attention to the rite of human sacrifice, known as the meriah rite, commonly practised in the Maliahs. The first step taken to suppress it was the appointment of Mr. Russell's Secretary, Captain Campbell, to the charge of Goomsoor and Sooradah with special charge over the Khonds, but with no means of punishing this special crime. He was at first Assistant Collector, but when Act XXIV of 1839 was passed, giving the civil and criminal administration of the hill tracts to the Collector as Agent to the Governor of Fort St. George in Ganjam, he became Principal Assistant to the Agent. For four years he annually made short tours above ghauts, and rescued in that time 130 victims destined for sacrifice. He was succeeded by Captain Macpherson in 1842. This officer gave great attention to the suppression of female infanticide, a crime arising from poverty prevalent in the Sooradah Maliahs and those parts of Chinna Kimedy adjacent to them. In 1845, by which time he had rescued 255 victims, he went to Calcutta to take part in planning the details of the scheme for the Meriah agency, which was a complete scheme under the Government of India for suppressing the double practice of human sacrifice and female infanticide, and was established by Act XXI of 1845. (4) *Transfer of the tracts to the Government of India. Meriah Agency under Act XXI of* 1845.—Under the Act just mentioned Captain Macpherson was appointed the first Agent to the Governor-General in the hill tracts of Orissa, relieving the Collector and Agent of Ganjam of the Maliah tracts. In 1846 he proceeded to Boad and there he restored to the Khonds 170 victims, the Boad Rajah becoming responsible for their safety. After this he marched back to Russellcondah. His camp was attacked several times by Khonds in Upper Goomsoor. The Khonds believing they had defeated the circar, then invited from Ongole Chokro Bissoye, a near relation of Dora Bissoye their leader, in 1836. Chokro Bissoye set himself at their head as the champion of the meriah. The Chocapaud Bissoyes and Paiks largely supported him. Being hard pressed, however he left the hills and took to plunder and arson in the plains. Finding there that the cause of meriah possessed little interest he produced a child and set him up as the son of the late Goomsoor Rajah. This attached to his cause certain bodies of lowlanders. At this juncture, Brigadier-General Dyce assumed command of all the troops engaged. Within a week he sent in such a report on the Meriah Agent and his Assistants, Lieutenant Pinkney and Assistant Surgeon Cadenhead, that the Government of India suspended them, and General Dyce remained in charge till April 1847, when Lieutenant-Colonel Campbell, who was summoned to the scene of his old labors, took charge from him. After an inquiry, extending over a year and-a-half, by Mr. Grant of the Bengal Civil Service, the former officers of the Agency were honorably acquitted. In 1849 Colonel Campbell, who had rescued from Boad 235 victims the year before, made his first campaign into Chinna Kimedy rescuing 206 victims, most of whom came from Mahasingy. Chinna Kimedy was regularly traversed in succeeding years to carry out the objects of the agency; the last public human sacrifice took place there in 1852. From fever contracted there, Captain Frye, the Assistant Agent, an accomplished Khond linguist, lost his life in 1855. Armed opposition was only met with in the season of 1852-53 by Khonds of the neighbourhood of Punnigurh, and in 1855 near Lunkagurh. This latter resistance was however instigated by Chokro Bissoye, who was still at large. (5) *Re-transfer to Madras.*—Notwithstanding the steady work of the agency from 1845 onwards, five sacrifices took place in the Goomsoor Maliahs in 1855 and two in 1857. In 1850 the Maliahs, except as regards the crime of human sacrifice and infanticide had been restored to the jurisdiction of the Agent in Ganjam. In 1852 the regular police were introduced into Goomsoor. The meriah officers attributed to these steps the recurrence of a rite believed to have been abandoned many years before. (6) *Conclusion of the Meriah operations.*—In 1854 Colonel Campbell retired. He was succeeded by Captain MacViccar, who only held office for a year. Then Lieutenant Macneil became the Meriah Agent, a post he held till the 31st May 1862, when, under a resolution of the Government of India of the previous December, the agency was abolished. This was followed by the police being introduced into Chinna Kimedy, and the administration being conducted as it is at present. Altogether the Meriah Agency rescued some 1,400 victims from the Goomsoor and Chinna Kimedy Maliahs. From the Pedda Kimedy and Parlakimedy Maliahs inhabited by Sowrahs, who would participate in the sacrifice performed by Khonds, but who did not indulge in the rite themselves, there were none to rescue. (7) *Outbreaks down to* 1877.—Affairs did not proceed satisfactorily on the first introduction of the new system into Chinna Kimedy, partly from the dislike of the Khonds to fixed rule of any sort, and partly from their being forced to work during the cultivating seasons on making roads. An outbreak in the Sooradah Maliahs was followed by a more serious rising in the west known as the Kootiah rising of 1866, though many villages, not of Kootiah Khonds, joined in it. This took some time to suppress and immediately afterwards there were other risings in the neighbourhood of Bammoonigaum and in the Bodagooda Maliahs. The last affair in 1877 was also in these Maliahs, and is known as the Coottigodo rising. The affair of 1866 led to the Special Assistant Agent, then called the Junior Assistant Agent, and the Assistant Superintendent of Police having to reside six or eight months above ghauts, and also it being found that the Chinna Kimedy Rajah had no influence or authority over his Maliahs to their being severed from the zemindarry and taken up by Government. This was finally accomplished in 1872. Fourteen hill chiefs in them pay now to Government 12 rupees a year each, the annual tribute money they formerly paid to the zemindar, whose peshcush was correspondingly diminished. (8) *Changes in the extent of the Agency.*—In 1866 Goomsoor and Sooradah below ghauts, which up to then had been Agency tracts since 1839, were transferred to the ordinary jurisdiction. Chocapaud, Coradah, and Ronabah were transferred with them, but these were given back to the Agency in 1869. In the mean time an assessment had been levied from Chocapaud. This is now at the rate of 6 annas per acre per dry crop and 12 annas per wet crop, and yields about Rupees 1,700. The Goomsoor Bissoyes pay nothing to Government on the strength of a proclamation issued in 1846 at the instance of Captain Macpherson that the "Government does not intend either now or hereafter to impose tax on the hill races." The Pedda and Parlakimedy Maliahs are not part of the permanently-settled estates of these zemindarries, being held under special sunnud.

divisions are respectively about 350 and 450 square miles in extent, and have populations of 39,152 and 35,460. The Special Assistant Agent has the Chinna Kimedy, Goomsoor, Bodagooda, Cuttingia, Sooradah and Coradah Maliahs; the Coradah and Ronabah estates, which, with the Pondakholl mootah, are Agency tracts below ghauts form part of the Sooradah talook. The division has an area of 2,704 square miles and a population of 171,979. Of the total Maliah population, Khonds number 112,311, and belong, except about 1,500 in Pedda Kimedy, to the Special Assistant's division. Sowrahs number 50,163, of whom only about 1,000 are in the Special Assistant Agent's division, and the remainder are nearly equally divided between the Senior and Principal Assistants' divisions. Ooriyahs account for 20,074, Panos for 33,391, and the rest number 30,652; the last-named are chiefly herdsmen, artizans and Gonds. The name Maliah is derived from a Hindoo root signifying mountainous, the same root as in Malayalam. The Khonds call the country after themselves "Kooidesha," or Khond country. Except Chocapaud, which is a plateau by itself, 1,000 feet above sea level, the northern part on its eastern or Goomsoor side consists of wide well-cultivated valleys separated by hills covered with poor jungle, while on its western or Chinna Kimedy side it is mountainous and rich in forests of young saul trees. The width of this part, which averages some 2,000 feet above sea level, is about 30 miles. On its south-east and south-west extremities the mountains rise to over 3,000 feet, and are the territories of the Sooradah Maliah and Kootiah Khonds respectively. Ridges of high lands almost join these extremes and extend some 25 miles south, when a general level of only about 1,000 feet is maintained till the very mountainous and difficult country of the Pedda and Parlakimedy Maliahs is reached. Except in Goomsoor, paddy cultivation is not extensively carried on by Khonds; elsewhere it is on a small scale, and chiefly in the hands of the Ooriyahs. The staple products are turmeric, oil-seeds, viz., mustard, gingelly, niger and castor, pulses and millet. The mohwa and the mango are the chief fruit trees; they are carefully preserved from jungle fires. Coomry cultivation is universal. Though they spend great labor on felling hill sides and making paddy fields, the Khonds take little trouble beyond that in rearing their crops; their cultivation being not nearly so advanced as that of the Sowrahs. The result is, except in Goomsoor near the markets, a poverty-stricken race possessing little agricultural stock, and showing no signs of affluence at all. The character of the Khonds varies in different places. Where much intercourse has taken place between them and people of the plains, the vices of lying and thieving have been developed; otherwise they may be considered a bold, and moderately laborious mountain peasantry, of simple but not undignified manners, upright in their conduct, sincere in their superstitions, proud of their position as land-holders, and resolute to defend their rights. The Khond language is Dravidian. The Kootiah, Chinna Kimedy, Bodagooda, and Goomsoor Khonds speak such different dialects, that the three last-named can hardly understand one another, and cannot understand the Kootiah speech. Their advance in civilization is not uniform; the Kootiah Khonds cannot be said to have any civilization, while the Goomsoor Khonds have a fair idea of it. All the Khonds would settle their land disputes by battle, were it not for police restriction. Finally there is little or no connection between the Khonds living above and those living below ghauts. The former are a finer race in every way; the latter are a servile class, as their distinguishing name "Bettiah" signifies. Every where associated with Khonds is the race of Panos, probably an aboriginal tribe. These have well-marked gipsy proclivities. Their occupations or trades are weaving and theft. They live on the ignorance and superstition of the Khonds. In those parts of the country where there are no Ooriyahs, they possess much influence. The Sowrahs, whose language belongs to the Kolarian group, are richer, because they are more skilful and energetic cultivators, than the Khonds; but are much on a par with them in want of civilization. The Ooriyahs are the dominant race in the Maliahs. In only one case is there a Khond chief with authority over the Ooriyah Paiks or militia of the country. The hill chiefs, who are Ooriyahs, are as a general rule descendants of immigrants of seven or eight generations ago. These either came to the country receiving a share of it from the zemindar, as a reward for service or in view of their controlling the Khonds; or they were invited to the country by the Khonds themselves to help

them in their intertribal fights and settle their disputes. In this way the Kootiah chiefs, who are Gonds, came from the Central Provinces, and the chiefs of the northern part of Chinna Kimedy came from Boad. The descendants of these men and heir retainers compose the greater part of the Ooriyah population.

70. The law is the same as in the case of Vizagapatam, and the same rules under Act XXIV of 1839 are applicable. For administrative purposes, the Principal Assistant Agent has the powers of an Additional Sessions Judge, and the other two divisional officers have the powers of an Assistant Sessions Judge. Education and public works are also primarily under their control. As regards education, seven schools were founded in 1851 by Captain MacViccar. In 1854 only three of these were left with an attendance altogether of 25. In 1855 nine new schools were started by Captain MacDonald with 91 pupils, and there are now in the Special Assistant's division 13 government primary schools with 860 pupils, viz., 634 Ooriyahs, including 112 girls, 220 Khonds, and 6 Sowrahs; in the Senior Assistant's division 2 with 57 pupils, all Ooriyah boys with the exception of 3 Sowrahs; and in the Principal Assistant's division 2 with 65 pupils, 54 of whom are Ooriyahs and 11 Sowrahs. Besides these the Roman Catholic missionaries have a school at Cuttingia with 30 pupils, and one patro supports a school with 16 pupils; there are also 11 others recently instituted which now come under the combined system with 229 Ooriyah and 239 Khond pupils. In 1878 there were altogether at school 735 boys and 11 girls. Of the boys, 117 were Khonds and 3 Sowrahs. On the 31st March 1884 there were 18 schools with 998 Khond, Ooriyah, and Sowrah pupils, of whom 882 were boys and 116 girls. Under the grants given for petty construction and repairs, a few cart roads have been made above ghauts diverging from the top of the Calingyah ghaut, up which there has been a passable cart road for 15 years. The road up the ghaut is continued as the Boad road to the frontier of that State which it traverses and it then goes on to Sumbulpore. The Boad road passes through the very large mart at Tikkarapully in the Goomsoor Maliahs, and from there one cart road runs to Leinpadoo and another runs right through Chocapaud to the plains. From Calingyah a road runs to Oodayagherry 5 miles; whence two roads, both passable for carts, go to Balligooda, the head-quarters of the division. The southernmost road 44 miles, known as the Caulipaino road, is mostly bridged with masonry bridges. The other 40 miles is not nearly so good. These are the only cart roads. The other roads are the military road which runs from Balligooda through the whole of Chinna Kimedy and Bodagooda Maliahs to the centre of the Pedda Kimedy Maliahs a total distance of 110 miles, and the Kotghur road, south-west from Balligooda for a distance of 37 miles. A cart road is to be made up the ghauts behind Parlakimedy town to Goomma. There are 33 miles of road in the Parlakimedy Maliahs, but these communications are little more than cleared foot-paths and are very steep and rough. For keeping the public peace, a reserve of police, 82 strong, is stationed at Balligooda, and another 39 strong at Parlakimedy. The sanctioned number of other constables is 276. These are distributed among 15 stations, which are on an average at distances of 20 miles from one another. Until May 1871 the Government did not interfere in any way with the production or sale of liquor in the hills; and up to the present time the Khonds are permitted to supply their own requirements as to liquor, manufacturing it only however and not selling it. They distil a spirit from the dried mohwa flower, make a beer from the samaloo grain, and draw toddy from the sago palms. About the date mentioned however it was found that the Khonds preferred buying liquor distilled from rice by the caste of Sondies to manufacturing their own. In Goomsoor, where the hill chiefs in consideration of heavy payments allowed this caste to settle and pursue their trade, the land of the Khonds was rapidly passing into the hands of the Sondies as the price they paid to them for liquor consumed. In May 1871 the Sondies were prohibited from selling or distilling liquor, and an agreement to supply liquor in the hill tracts was entered into with the abkarry contractor of the plains. This agreement was in 1872 prolonged for three years and changed into a monopoly of the right of sale. In 1874 the system was extended to the other Maliahs. In March 1883 it was abandoned. It was at no time a financial success as smuggling and illicit distilling could not be prevented. At present, if the village headman does not object to the presence in his village of a

licensed distiller and seller, a license is granted on payment of a small annual fee to any one not being a Sondy. In the Pedda Kimedy Maliahs this system has been successfully worked, but in the other Maliahs no one has applied for licenses, the fact being that no one there but the caste of Sondies knows properly how to distil. The original civil jurisdiction is in the hands of the Sub-Magistrates, who have the powers of District Moonsifs and of the Assistant Agents. Most cases are settled by punchayet. In cases of succession to landed estates, Government finally decides upon report from the Agent; and the Government, not the High Court, settle appeals from the Agent's decrees, where the landed possessions of the hill chiefs have been the subject of litigation.

71. GODAVERY AGENCY.—The Godavery agency, as at present constituted,[4] comprises the Bhadrachellam and Rekapully talooks, the Rumpa country, the Dootcherty and Gooditeroo mootahs, and the hill villages or hill mootahs of Yernagoodem and Peddapooram talooks. The Bhadrachellam and Rekapully talooks are in charge of a divisional officer styled the Special Assistant Agent, who has his head-quarters at Coonavaram. The tracts occupy an area of 1,690 square miles, with a population of 96,727, in the north and north-west of the district. They are in different stages of advancement, owing partly to their geographical situation and partly to differences in tenures of land and system of management. Jaddangy and the Yernagoodem hills are the most advanced, owing to proximity to the plains, with easy means of communication; and owing also in the case of Jaddangy, to the abolition of the mootahdarry tenure on which it was formerly held. The area of the talooks is 385 square miles. The population is 93 per square mile and consists chiefly of Kooies, who clear and cultivate small patches of land and graze large herds of cattle in forests. A strip of land along the banks of the Godavery and Severy is very fertile, and fully though negligently cultivated. The greater part of the interior is flat and suitable for permanent occupation. The tenures are peculiar. Besides the superior proprietor there are several inferior proprietors, the principal of whom is Rekapully, who are liable to pay the superior the peshcush fixed on the estate plus a malikhana allowance, generally 10 per cent. and never more than 40 per cent. of the peshcush, in consideration of superior rights conferred.

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[4] SKETCH HISTORY OF THE GODAVERY AGENCY.—*Formation of the Agency.*—The talooks of Bhadrachellam and Rekapully included in the six talooks of the Upper Godavery district, which were ceded by the Nizam by the treaty of 1862, were transferred to the Madras Presidency and added to the Godavery district on the 1st April 1874, and together with the Rumpa country, which had hitherto been included in the Rajahmundry talook, were in 1879 constituted, under the authority given by the Scheduled Districts Act, an agency, under the Collector of the district styled Government Agent. In 1881 the mootahs of Dootcherty and Gooditeroo, which had been up to that time administered by the Government Agent at Vizagapatam, were transferred to the Godavery Agency, and in 1883 the unsettled Government villages in the Yernagoodem talook, the villages of the ex-mansabdar of Jaddangy and the mootahs of Bayanagoodem, Billamilly, Jangamreddygoodem, Gootaula, Gungole, Pattesam, Polaveram, Pettah, Tondangy, Veeravaram Deviputnam were also transferred to the Agency tracts under the authority of the Secretary of State as given by the Scheduled Districts Act. (2) *Bhadrachellam and Rekapully.*—The Bhadrachellam and Rekapully talooks were in A.D. 1324 granted as a military jagheer by the Emperor of Delhi to one Anapoo Ashwarow on the condition of his maintaining a body of 500 foot for service. The estate continued in the possession of the family on that tenure up to 1809, when the condition of the service was abolished and the estate was granted on lease of Rupees 5,000 to one Vencatrama Ashwarow, the adopted son of the last holder, who was the twenty-second from the original grantee. On the death of Vencatrama Ashwarow, his son obtained a lease for two years; but he having died soon after, a cowle was granted in 1858 to his brother, Seeta Ramchendra Ashwarow, for nine years for Rupees 7,000 a year. On his death in 1859 without issue his mother succeeded him. In 1860 the talooks were transferred to the British Government. For about a year subsequent to the cession, the Ranee was allowed to hold the talooks on a payment of Rupees 8,000, which was the amount remitted to her at the cession by the Nizam from the lump sum payable on the whole of the Paluncha estate. In 1861 a summary settlement was made with the proprietors by the Government of Central Provinces, the peshcush being fixed at Rupees 9,500; and in 1867 another settlement was made for twenty years, by which the forests in the zemindarry and the abkarry and miscellaneous revenue were resumed and the yearly Government demand was fixed at Rupees 17,450, subject to a deduction during the life-time of the Ranee of Rupees 4,428 on account of resumption of forests, &c. The Ranee died in 1875, on which the annual allowance of Rupees 4,428 was discontinued, and the estates are now under the management of her son-in-law on behalf of her daughter's son, Parthasarady Apparow, to whom she had transferred it during her life-time. The peshcush was subsequently revised and fixed at Rupees 16,709-2-8 a year. (3) *Rumpa.*—Rumpa was till 1800 held on mansabdarry tenure, and the unchecked, oppressive career of the last mansabdar led to serious disturbances in 1879. In 1880 Mr. Sullivan was deputed on special duty to inquire into the cause of the disturbances; and later on Mr. Carmichael went to the spot with special powers to make a final settlement. The mansabdar was made a State prisoner and the mootah was confiscated and conferred on several chiefs on mootahdarry tenure at fixed quit-rents. Dootcherty and Gooditeroo are also held on the same tenure. The Rumpa disturbance owed its origin chiefly to the imposition by the mansabdar of a toddy tax. The people resented the measure and a fitoory ensued. They attacked the stations of Chodavaram and Kotah and committed several murders. The fitoory extended on the west to Rekapully in the Bhadrachellam talook and on the east to Goodem and Hill Madgole in the Vizagapatam district, a large number of constables and some companies of sepoys were employed to suppress the rebellion. The fitoorydars eluded arrest for a long time but gradually one by one were seized, the leader was killed and the fitoory was finally suppressed in the early part of January 1881. (4) *Yernagoodem Hills.*—The Yernagoodem hills were the scene of disturbances in 1858. The principal leaders were hanged and their mootahs confiscated. Most of the confiscated villages were placed under the management of moonsifs of two villages in the plains with satisfactory results. Part of this tract belongs to the zemiudarry of Polaveram and of Gootaula.

There are three tenures of land held by ryots:—(1) Poora Mourasy which conveys absolute right of occupancy, (2) Sharty Mourasy which denotes conditional right, (3) Gheir Mourasy corresponding to tenancy-at-will. The unoccupied forests are the property of Government, and as the people prefer to hold directly from Government, numerous villages have been planted in these forests and are managed by a Tahsildar. The principal rivers which flow through the talooks or along the boundaries are the Godavery, Severy, Sokoolair and Sillair, but are not utilized for irrigation. There are few tanks and almost the whole of the cultivation is dependent on the falling rains. The right of ferrying the people across the rivers is leased out by auction annually. The Rumpa mansabdars merely collect certain dues, usually a rupee on every house, and remit to the treasury a fixed sum retaining whatever may have been collected over and above the quit-rent. The villagers make small clearings in the jungles and grow a little grain; but subsist chiefly on game and roots, fruit and honey gathered in the jungle. Hardly any land is permanently occupied, and even the village-sites are frequently changed. The valley of the Paumoolair in the Rumpa country possesses great natural advantages, but the Reddies in whose hands it is are entirely ignorant of how to utilize them.

72. The abkarry and opium administration of the Agency tracts is different from that of the plains. Country toddy is enjoyed by villagers free of charge. The arrack farm is rented to the villagers themselves from fusly to fusly. The monopoly of the manufacture and vend of arrack in the Teloogoo villages is every year put up to sale in three farms. Free licenses are given to heads of villages for the vend of opium. The salt laws are not in force in these tracts. The only local funds at present levied in Bhadrachellam and Rekapully talooks are road and school funds. These are paid by the proprietary villages in the proportion of 2 per cent. on the peshcush payable on the village in addition to the peshcush. There were during the year 1883-84 51 schools in existence, 10 in the Bhadrachellam talook, 3 in Rumpa, and 2 in the mootahs of Dootcherty and Gooditeroo.

73. In the Government Agent are combined the functions of the Collector, District Magistrate and District and Sessions Judge, and he is guided by rules promulgated by the local Government, and having the force of law.[5] In the case

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[5] RULES FOR THE GUIDANCE OF THE COLLECTOR OF THE GODAVERY DISTRICT, WITHIN THE SCHEDULED TRACTS OF BHADRACHELLAM TALOOK, REKAPULLY TALOOK, AND THE RUMPA COUNTRY. *Civil Justice.*—RULE I, CLAUSE 1.—The said Collector and District Magistrate shall, under the designation of Government Agent, be the Collector, District Magistrate, District Judge and Sessions Judge, within the said scheduled districts. His Sub-Collector and Assistant Collectors and any other persons whom the Governor in Council may appoint shall be designated Assistant Government Agents. CLAUSE 2.—The Government Agent is empowered to appoint any of his principal native officers, or, with the sanction of Government, any other duly qualified person to exercise, in such places and within such portion of the scheduled districts as he may consider proper, the jurisdiction vested in the District Moonsifs of the Madras Presidency, subject to the modifications contained in these rules. CLAUSE 3.—Such Moonsifs shall not have cognizance of any suits for real or personal property exceeding in value 300 rupees, nor shall they at any time have cognizance of any suit in which any Zemindar, or any Mansabdar or Mootahdar, or other feudal Hill Chief may be concerned, nor of suits 'in formâ pauperis,' except such suits 'in formâ pauperis' as the Government Agent may specially refer for decision to them. CLAUSE 4.—The valuation of a suit will be made according to the provisions of Section 7 of the Court Fees Act. Suits of the amount cognizable by the District Moonsifs shall be instituted in the Courts of those Moonsifs alone: provided, however, that the Government Agent shall be at liberty at his discretion to transfer to his own Court or to that of an Assistant any suit cognizable by a District Moonsif. RULE II, CLAUSE 1.—With the single exception of the particular suits specified in the preceding Rule, which are cognizable by such District Moonsifs as are there described, all Civil suits of whatever description or value arising within the scheduled districts shall be instituted, in the first instance, in the Court of the Government Agent; and the Government Agent and (solely upon reference by him of suits to them) his Assistants are hereby vested with the same powers to try and determine such suits as are vested in the District and Subordinate Courts, or in the Collector's Courts of the Madras Presidency, respectively, subject to the modifications in these Rules contained. CLAUSE 2.—The Government Agent shall alone be competent to try and determine suits for real or personal property exceeding 5,000 rupees, or for lands paying revenue, of which the annual produce exceeds Rupees 500. But he shall have the power of either deciding himself or referring for decision to his Assistants all suits for a less value: provided, however, that claims of succession to, or any interest in, the estates of any feudal Hill Chief shall not be entertained in any Civil Court; but in all such cases the Government Agent shall, through the Board of Revenue, submit the result of his inquiry for the orders of Government, who shall determine the point at issue. RULE III, CLAUSE 1.—The Civil Courts of each grade shall receive, try, and determine suits hereby declared to be cognizable by those Courts, if in the case of suits for land or other immovable property such land and property shall be situate within the limits to which their respective jurisdictions may extend, and in all other cases if the cause of action shall have arisen, or the defendant at the time of commencement of the suit shall dwell or personally work for gain within such limits. In no case will the Courts have jurisdiction to adjudicate upon property not within the jurisdiction of the Government Agent. CLAUSE 2.—The Government Agent is authorized at his discretion to employ such number of Pleaders in his own Court or in the Courts of his Assistants and the District Moonsifs as may from time to time appear to him necessary. CLAUSE 3.—The Pleaders will be entitled to receive a fee according to the provisions of Regulation XIV of 1816 of the Madras Code. The Government Agent shall be competent to punish any misconduct of a Pleader by fine not exceeding 50 rupees, leviable as an arrear of land revenue, or by cancellation of his sunnud, or both. CLAUSE 4.—Any of the landholders described in Rule I, Clause 3, may, however, be permitted to conduct his business in the Courts by his own special Mookhtiar, but suits for the remuneration of such Mookhtiar shall not be received or filed in any Court. RULE IV.—

of these tracts the Government have taken action under Section 3 of India Act XIV of 1874, and have declared certain Acts to be in force there. Regarding the particular Acts specified there were doubts, the change of organization being recent; and these doubts had to be corrected. Other notifications and rules under India Act XIV of 1874 which have the force of law are the following :—(1) application of the Act to Bhadrachellam and Rekapully talooks and the Rumpa country —Judicial notification published in the Fort St. George Gazette of the 1st July 1879 ; (2) The Godavery District Rules under Section 6, published in the Fort St. George Gazette of the 8th July 1879, and given in the foot-note; (3) extension of Madras Act III of 1864 (Abkarry Law) to Bhadrachellam and Rekapully talooks—Judicial notification, Fort St. George Gazette, dated 3rd August 1880; (5) Judicial notification published in the Fort St. George Gazette of the 5th July 1881, transferring the mootahs of Dootcherty and Gooditeroo from the Vizagapatam to the Godavery Agency. The law under subject-heads is shown in Vol. II, App. LIV, under the title of Special Agencies.

From decrees in all original suits an appeal shall lie from the Courts of Moonsifs and from the Courts of the Assistants to that of the Government Agent. RULE V.—The Government Agent is authorized to refer to his Assistants, for decision, all appeals to him from the decision of the District Moonsifs; and the decree of the Assistant in such appeals shall be final, excepting in cases where, for reasons to be recorded, the Government Agent shall admit a Special Appeal, to be heard and determined in his own Court. RULE VI.—When an appeal shall be preferred from any Moonsif's or Assistant's decision, it shall not be necessary to summon the respondent in the first instance, but forthwith the original record of the proceedings in the case shall be called for; and if, after the perusal of the record of the original suit and petition of appeal, the officer hearing the appeal shall see no reason to alter the decision appealed from, it shall be competent to him to dismiss the same with an endorsement on the petition of appeal that it has been so dismissed. RULE VII.—The Government Agent or his Assistant, as the case may be, is empowered to call for further evidence in any case appealed, or to refer the suit back to the officer who originally decided it for further evidence and for a decree de novo. The Government Agent is likewise empowered, on the application of any party, in a suit decided by a Moonsif or an Assistant, but not appealed, to direct a review of judgment, and is further competent to authorize a Moonsif or an Assistant to review his own judgment on sufficient ground assigned; and also to remove to his own or any other Court within his jurisdiction, by precept under his official seal and signature, any suit, original or appellate, which may be pending in a lower Court, regarding his reasons for so doing. RULE VIII.—All decrees passed by the Government Agent on appeals from decrees of his subordinates shall be final, the High Court having the power, on special grounds, to require him to review his judgment as may be directed by them. RULE IX.—From all decrees upon original suit passed by the Government Agent, an appeal shall lie to the High Court. RULE X, CLAUSE 1.—With the exception of the Court of the Government Agent, who shall be at liberty in the execution of decrees to employ an Assistant or Moonsif, all decrees of other Courts within his jurisdiction shall be carried into effect by the Court by which the suit may have been decided. CLAUSE 2.—Decrees shall be executed by an order addressed to the proper officer of the Court; but no landed property shall be attached in execution of a decree unless the authority of the Government Agent shall have been previously obtained. RULE XI, CLAUSE 1.—The Government Agent is authorized at his discretion to refer any suit, or special questions in a suit, whether pending before himself, his Assistants or Moonsifs, for examination and judgment by a Punchayet, to consist of three or five persons, to be selected by the Government Agent or by his Assistant, after the plaintiff and defendant have had notice and the witnesses have been assembled. The Assistant Government Agents shall be competent to exercise a similar discretion in regard to suits pending before themselves under these Rules. The plaintiff and defendant, or their Pleaders or Mookhtiars, shall each be permitted to challenge any members of the Punchayet; and on sufficient reason being given for the challenge, another person or persons shall be selected to supply his or their place. The officer referring the suit to a Punchayet shall name one of the Punchayetdars to act as the foreman, and at the request of the Punchayetdars shall secure the attendance of all parties required for the trial of the suit. If the Punchayetdars are divided in opinion, the opinion of the majority shall be the award of the Punchayet. Any of the Punchayetdars may, if he chooses, record his reasons of dissent separately, and the same shall form part of the record of the suit. CLAUSE 2.—When a Punchayet has been nominated, the officer referring the suit shall immediately direct a goomasta or clerk to attend the Punchayet, whose duty it shall be, under the direction of the Punchayet, to record their proceedings and award; and the Punchayet shall assemble at some convenient place in his Cutcherry or Court, or adjoining it, to investigate the matter at issue. CLAUSE 3.—When the pleadings shall have been closed and evidence taken, the Punchayet shall direct the parties and goomasta or clerk to retire, and shall consult and decide on their award; and when they have come to a decision, they shall recall the goomasta or clerk to record the award, which (award), having been duly attested with their signature, they shall deliver to the officer appointing the Punchayet, by whom, if approved, a decree in conformity therewith shall be passed, which decree in cases where the Punchayet has been assembled by a subordinate shall, previous to its execution, be submitted to the Government Agent, who shall either confirm, modify or reverse the award, or remand the case for further investigation or reinvestigation by a Punchayet or otherwise as may to him seem expedient. When any such award shall be disapproved by the officer appointing the Punchayet as illegal or defective on the face of it, he shall restore the suit and proceed to determine it himself. RULE XII.—The Government Agent will submit to the High Court half-yearly statements of the number of causes filed and disposed of by himself or his Assistants, or by the Moonsifs, prepared in such form as may be by them prescribed. *Revenue Rules.*—RULE XIII, CLAUSE 1.—In conducting their local duties in the Revenue Department, the Government Agent and his Assistants will be guided by the rules in force for the time being. CLAUSE 2.—The Government Agent and his Assistants will continue in their Revenue capacity, subject to the general control and orders of the Board of Revenue. CLAUSE 3.—It shall not, however, be incumbent on the Board of Revenue to interfere, except in matters referred to them by the Government Agent, unless a strong necessity for such interference shall appear. *General Rules.* —RULE XIV.—All Civil processes issued at the instance of any authority situated beyond the jurisdiction of the Government Agent, to or against any person subject thereto, or situated therein, shall be forwarded by letter to the Government Agent, who shall execute the same as if it were his own process, returning the said process, by letter, to the authority from whom it issued, duly endorsed by his proper officer, showing what has been done thereon. RULE XV.—All petitions against the proceedings of the Government Agent must, in the first instance, be submitted to the Government, and will be referred, when necessary, either to the High Court or to the Board of Revenue, as the case may be. RULE XVI.—Reference will be made to the Government by the Government Agent in all cases not provided for by the rules.

GENERAL FORM OF ADMINISTRATION.

74. THE GOVERNOR IN COUNCIL.—The administration of the Madras Presidency[1] is vested in a Governor; with a Council of three Members, one of whom is the Commander-in-Chief for the time being, and the two others are Members of the Covenanted Civil Service. This body forms the Executive Government of the Presidency, its orders issuing as those of the 'Governor in Council.' The Commander-in-Chief is Second in Council, but the Senior Civilian Member presides in the absence of the Governor. The appointment of the Ordinary Members of Council is made by the Queen. On the occurrence of a vacancy from different causes, the Governor in Council can appoint any person as a temporary member of Council; provided that the person so appointed would be eligible for the permanent appointment. Additional Members (one being the Advocate-General 'ex-officio') are added to the number for purposes of legislation under the authority of the Governor, the particulars of which will be seen in a later section. Exclusive of the Advocate-General, half of the Additional Members must be non-officials. The cabinet system of administration, under which each Member of the Executive Council deals with separate subjects and refers special cases only to the whole Council, is carried out in a certain degree. It does not prevail to the same extent as in the Governor-General's Council, and still less to the same extent as in a European cabinet. The Governor has a casting vote in case of an equal division in the Council, and he can in exceptional cases set aside the opinion of the Council arrived at by majority. Correspondence with the Government of India is conducted by letter through the Secretariat. The Government communicates direct with the Secretary of State in certain cases. Subjects of importance, grants of pensions to Civil Servants and Military officers, appointments to the higher offices, vacancies and retirements, with certain other subjects, are reported to the

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[1] SKETCH ACCOUNT OF THE ADMINISTRATION OF INDIA GENERALLY.—*Secretary of State.*—The "Court of Directors" of the East India Company and the "Board of Control" which acted as a check on the part of the Crown on that Court were done away with in 1858. The present form of government of the Indian empire is established by the Act 21 and 22 Victoriæ, cap. 106 (1858), called "An Act for the better government of India." By the terms of this Act, all the territories heretofore under the government of the East India Company are vested in Her Majesty, and all its powers are exercised in her name; all territorial and other revenues and all tributes and other payments are likewise received in her name, and disposed of for the purposes of the Government of India alone, subject to the provisions of this Act. One of Her Majesty's principal Secretaries of State, called the Secretary of State for India, is invested with all the powers hitherto exercised by the Company alone or under the Board of Control. (2) *Secretary of State's Council.*—The Secretary of State is under the above Act aided by a Council of fifteen members, of whom at first seven were elected by the Court of Directors from their own body, and eight were nominated by the Crown. Vacancies in the Council are now filled up by the Secretary of State for India. But the major part of the Council must be of persons who have served or resided ten years in India, and who have not left India more than ten years previous to the date of their appointment; and no person not so qualified can be appointed unless nine of the continuing members be so qualified. The office is held for a term of ten years; but a member may be removed upon an address from both Houses of Parliament, and the Secretary of State for India may for special reasons re-appoint a Member of the Council for a further term of five years. No Member can sit in Parliament. The duties of the Council are, under the direction of the Secretary of State, to conduct the business transacted in the United Kingdom in relation to the government of, and the correspondence with, India; but every order sent to India must be signed by the Secretary, and all despatches from the Governor-General of India and the Governors of Madras and Bombay must be addressed to the Secretary. The Secretary has to divide the Council into committees, to direct what departments shall be under such committees respectively, and to regulate the transaction of business. The Secretary is to be President of the Council, and has to appoint from time to time a Vice-President. The meetings of the Council are to be held when and as the Secretary shall direct; but at least one meeting must be held every week, at which not less than five Members shall be present. If the Council differs from the Secretary of State, the opinion of the Secretary is final, except in some matters, for the decision of which the law declares a majority of votes necessary. The most important of such cases is provided by Section 41 of the Act itself. No grant or appropriation of Indian revenue or public property can be made without such majority. (3) *Governor-General.*—The executive authority in India is vested in a Governor-General, commonly but not officially styled Viceroy, who is appointed by the Crown, and acts under the orders of the Secretary of State for India. The list of the Governors-General from Warren Hastings, the first Governor-General in 1772, to the present day is given in Vol. II, App. XLI. The average term of office of the Governors-General during the whole period has been five years. (4) *Governor-General's Executive Council.*—The Governor-General is assisted in the government of the country by a Council (24 & 25 Vic., cap. 67, Indian Councils Act, Section 3) consisting of six ordinary Members, and one extraordinary Member, the latter the Commander-in-Chief. The ordinary Members of the Council preside over the departments of foreign affairs, finances, the interior, military administration, and public works. The appointment of the ordinary Members of the "Council of the Governor-General" is made by the Crown. (5) *Governor-General's Legislative Council.*—The Council of the Governor-General for the purpose of making laws and regulations is composed of the Members of the Executive Council and of not less than six or more than twelve Additional Members, giving a total of nineteen Members (24 & 25 Vic., cap. 67, Section 10). One-half of the Additional Members must be non-officials. The six official Members have usually been Civilians from different parts of the country one being from this Presidency. Of the non-officials two are generally leading Calcutta merchants and four natives of rank selected from different parts of India. This Council undertakes the provision of laws applicable to the whole of India, the passing of local Acts being left to the Provincial Legislative Councils. (6) *Provinces immediately under the Government of India.*—The Lieutenant-Governors and Chief Commissioners of the ten provinces other than Madras and Bombay are appointed by the Governor-General, subject to the approbation of the Secretary of State for India. The Governor-General may also himself become the Local Government of certain provinces by taking them under his direct management (under the Acts 17 and 18 Vic., 77). The Central Provinces, Oudh, Assam, and British Burmah are examples of this. In such cases there is a Chief Commissioner who constitutes the "Local Administration."

Secretary of State. The form of communication with England is by despatch, signed by all the Members of Council; except in mere formal communications when the Secretariat method is adopted. In Vol. II, App. XLI will be found a list of the Governors of Fort St. George from the earliest times down to the present day. The Governor in Council can create, modify, or abolish all appointments on a salary not exceeding Rupees 250 per mensem which require the sanction of the Secretary of State. The Governor in Council is empowered to undertake any works of public utility, other than railways, up to a limit of ten lakhs for any one work. The Governor himself possesses all the civil patronage of the Presidency which is not delegated to members of the subordinate administration. He can appoint to all offices other than the few offices which are recruited direct from England. The Governor takes official tours from time to time, with a view to putting himself into immediate communication with the local administration.

75. THE SECRETARIAT.—The different Secretariat Departments of the Government are given in a list at foot.[2] Under the Chief Secretary is an Under Secretary, who is a Covenanted Civilian, and who takes precedence of the other Under Secretaries; and an Assistant Secretary, for the Legislative Department, who is in other words an Under Secretary. The Chief Secretary has also three Uncovenanted Assistants. Under the Revenue Secretary is an Under Secretary, with one Assistant and one Registrar. The Military Secretary is always a Military Officer; he has two Uncovenanted Assistants. In the Public Works Department are two Under Secretaries, and two Uncovenanted Assistants. All correspondence regarding public business reaches Government through the Secretariat. The list given in Vol. II, App. XXX shows the nature of the papers taken in the different Secretariat Departments. The patronage of the Covenanted Civil Service is disposed of through the Chief Secretary in the Public Department.

76. EXECUTIVE DEPARTMENTS AND OFFICERS.—The names of the different subjects into which the practical administration of the Government divides itself can best be seen from the major heads in the table of contents prefixed to this volume. The classification there shown is the classification of subjects adopted for the purposes of the yearly Administration Report. Some of the subjects, as Jails, Educational, &c., form so-called executive departments; where this is so, it is necessary to remark that such departments are not in any way co-incident with the Secretariat Departments of the Government Office. The principal executive and other officers who are in direct communication with the Government, are shown in the list given below.[3] The italic headings show the Secretariat

[2] SECRETARIAT DEPARTMENTS AND OFFICERS PRESIDING.

Department	Officer presiding
Financial Department	Under the Chief Secretary to Government.
Judicial do.	
Public do.	
Educational do.	
Political do.	
Ecclesiastical do.	
Marine do.	
Legislative do.	
Petition do.	
Revenue do.	Under the Revenue Secretary to Government.
Pension do.	
Public Works Department	Under the Public Works Secretary to Government, assisted by two Joint Secretaries in the Irrigation and Railway Branches.
Military Department	Under the Military Secretary to Government.

[3] PRINCIPAL OFFICERS IN COMMUNICATION WITH GOVERNMENT IN DIFFERENT SECRETARIAT DEPARTMENTS.

Judicial.

The Judges of the High Court.
District and Sessions Judges.
District Magistrates.
Agents to the Governor of Fort St. George in Vizagapatam and Ganjam.
Inspector-General of Police.
Inspector-General of Jails.
Magistrates of the Town Police Court.
Magistrates of the Egmore Police Court.
Judges of the Madras Court of Small Causes.
Advocate-General.
Government Solicitor.
Government Pleader.
Administrator-General.
Coroner of Madras.
Inspector-General of Registration.
Sheriff of Madras.

Public.

Collectors of Districts.
Commissioner, Neilgherries.
Surgeon-General with the Government of Madras.
Sanitary Commissioner.
Committee for the Examination of Assistants.
Private Secretary to His Excellency the Governor.
Government Astronomer.
Superintendent, Government Central Museum.
Chemical Examiner.
Protector of Emigrants.
Translators to Government.
Examiner of Medical Accounts.
Committee for the management, Government Workhouse, Madras.

departments of the Government Office in which for the most part their communications are received. A head of a department may be defined as a Court, Board, or person, with certain assigned independent powers of administration and patronage. Vol. II, App. XCIV gives a list of such heads of departments. Heads of departments have absolute control over the establishments subordinate to them; subject to the rules of the service, to certain conditions of patronage, and to the general direction of Government. In most cases heads of departments appoint their subordinates; but there are exceptions, where the power is reserved to Government. A gazetted officer is an officer whose appointment rests with Government, and is notified by them in the Government Gazette. The different services are noticed in the article on establishments.

77. THE PETITION SYSTEM.—The petition system, under which a person aggrieved with the action of any Government official appeals to the next higher authority by means of a petition and receives back a written reply, either refusing or promising redress, assumes an unusual importance in this Presidency owing to the number of small holdings of land under Ryotwarry, and the consequent multiplication of details in administering the land revenue. In a recent year the Government in all departments other than the Military and Public Works received 2,443 petitions; called for reports, that is to say, took evidence in 150 cases; gave redress in 53 cases without calling for evidence; and gave redress in 49 cases after calling for evidence. In the same year the corresponding figures for petitions dealt with by Board of Revenue were 3,330, 230, 15, and 43 respectively. An aggrieved person may appeal in succession to the officers representing each grade in the department concerned, and may finally address in turn the Local Government, the Government of India, and the Secretary of State. The three last named have prescribed certain rules checking the indiscriminate presentation of petitions; in other cases there is no check beyond the discretion of the officer receiving them. In a few cases the quasi-judicial Regulations provide for appeals and impose limits on their presentation. Most of the petitions presented to Government officials relate to land revenue. The Government does not act as a channel of communication for memorials addressed to Parliament.

78. LAW.—The principal statutes which relate to the office of the Governor in this Presidency, with the date and official title or usual designation, are the following. 11 Wm. III, c. 12 (A.D. 1698-99), Crimes committed in plantations. 33 Geo. III, c. 52 (A.D. 1792), an Act for continuing in the East India Company for a further term the possession of the British territories in India, together with their exclusive

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Political.

Resident in Travancore and Cochin.
Government Agent at Chepauk.
Government Agent at Tanjore.
Political Agent at Poodoocottah.
Collector in charge of the Special Agent's Department at Cuddalore.
Officer in charge of the Stipend Pay Office at Vellore.
British Consular Agents at Pondicherry and Caricaul.
Receiver of Carnatic Property.

Ecclesiastical.

The Right Reverend the Bishop of Madras.
Venerable the Archdeacon of Madras.
Senior Chaplain of the Church of Scotland.
Marriage Registrar for the Town of Madras.

Marine.

Master Attendant, Madras.

Financial.

Trustees of the Civil Fund.
Accountant-General.
Commissioner of Paper Currency.
Presidents of Municipalities.
Presidents of Local Fund Boards.
Superintendent of Stamps and Stationery.
Postmaster-General.

Educational.

Director of Public Instruction.
Commissioner for the Uncovenanted Civil Service Examinations.
Registrar, Madras University.
Superintendent of School of Arts.
Committee for the management, Lawrence Asylum, Neilgherries.

Revenue.

Secretary to the Board of Revenue.
Conservator of Forests.
Director of Revenue Settlement.
Superintendent of Revenue Survey.
Commissioner of Salt Revenue.
Superintendent of Government Farms.

Public Works.

Chief Engineer, Public Works Department.
Chief Engineer for Irrigation.
Consulting Engineer for Railways.
Examiner of Railway Accounts.
Examiner of Public Works Accounts.

Military.

Adjutant-General.
Quartermaster-General.
Judge Advocate-General.
Inspector-General of Ordnance.
Commissary-General.
Controller of Military Accounts.
Superintendent and Agent for Army Clothing.
Superintendent of Family Payments and Pensions.
Superintendent, Reserve Remount Depôt, Oossoor.
Surgeon-General, H.M.'s Forces, Madras.
Surgeon-General with the Government of Madras.

trade under certain limitations; for establishing further regulations for the government of the said territories and the better administration of justice within the same; for appropriating to certain uses the revenues and profits of the said Company; and for making provision for the good order and government of the towns of Calcutta, Madras, and Bombay: sections 25 to 31 and 37 relate to the supply of vacancies in the office of Governor, &c.: sections 47 to 50 authorize the issue of orders by the Governor in certain cases without the consent of the Council: by section 137 the Governor is forbidden to trade. 37 Geo. III, c. 142, s. 10 (A.D. 1796-97), an Act for the better administration of justice at Calcutta, Madras, and Bombay, and for preventing British subjects from being concerned in loans to the Native princes in India: under section 10 the Courts of Judicature at Madras are not competent to try any indictment against the Governor or any of the Council except for treason or felony. 39 and 40 Geo. III, c. 79, s. 12 (A.D. 1799), Government of India; 53 Geo. III, c. 155, s. 89 (A.D. 1812-13), Government of India; 10 Geo. IV, c. 62, s. 1 (A.D. 1829), an Act to exclude persons accepting offices in the East Indies from being members of the House of Commons; 1 Wm. IV, c. 4, s. 2 (A.D. 1830-31), an Act to render valid acts done by the Governor of any of His Majesty's Plantations after the expiration of his commission by the demise of His late Majesty, and to extend the period within which the patents of Governors of Colonies shall on any future demise of the Crown become vacant, and to provide for the longer duration of the patents of Governors after the demise of the Crown. 3 and 4 Wm. IV, c. 85, ss. 61, 65, 76, 77, 79 (A.D. 1833), an Act for effecting an arrangement with the East India Company, and for the better government of His Majesty's Indian territories, till the 30th day of April 1854: under section 61, the provisional appointment of any person to the office of Governor must be approved of by the Crown: section 65 places the Governor under the control of the Governor-General: section 76 fixes the salary of the Governor: by section 77 the Governor has to forego pensions, &c., from the Crown while holding office: section 79 relates to the resignation of his office by the Governor. 21 and 22 Vic., c. 106 (A.D. 1858), an Act for the better government of India: under section 29 the Governor is appointed by the Queen. 24 and 25 Vic., c. 67 (A.D. 1861), the Indian Councils Act, an Act to make better provision for the constitution of the Council of the Governor-General of India, and for the Local Government of the several Presidencies and Provinces of India, and for the temporary government of India in the event of a vacancy in the office of Governor-General. 36 and 37 Vic., c. 88, ss. 2, 3 (A.D. 1873), Slave trade. 43 Vic., c. 3 (A.D. 1880), an Act to amend the law relating to the salaries and allowances of certain officers in India; and for other purposes relating thereto: under section 2 the Secretary of State has the power to regulate the allowances for the equipment and voyage of the Governor and Members of Council. The detailed law relating to this subject is shown under the heading "Governor" in Vol. II, App. LIV.

79. The law having reference to the Commander-in-Chief in his capacity as Member of Council is found in ss. 30, 32, and 33 of the Statute, 33 Geo. III, c. 52 (1792-93). The detailed law on the subject is shown under the head of "Commander-in-Chief" in Vol. II, App. LIV.

80. The powers and duties of the "Governor in Council" as distinguished from the Governor are laid down in the following enactments. 13 Geo. III, c. 63, s. 9 (A.D. 1772-73), an Act for establishing certain regulations for the better management of the affairs of the East India Company, as well in India as in Europe. 33 Geo. III, c. 52, ss. 41, 43, 44 (A.D. 1792)—see above. 3 and 4 Wm. IV, c. 85, s. 56 (A.D. 1833)—see above. 24 and 25 Vic., c. 67, s. 42 (A.D. 1861)—see above. 32 and 33 Vic., c. 98, s. 2 (A.D. 1869), an Act to define the powers of the Governor-General of India in Council at meetings for making laws and regulations for certain purposes. 34 and 35 Vic., c. 34 (A.D. 1871), an Act to extend in certain respects the power of local legislatures in India as regards European British subjects. India Act I of 1877, s. 45 (*f*)—the Specific Relief Act. The detailed law relating to the "Governor in Council" is shown under that heading in Vol. II, App. LIV. A general definition of the term "Local Government" is given in s. 2 (10) of India Act I of 1868 (General Clauses' Act).

81. The law for Members of Council is as follows. 33 Geo. III, c. 52 (A.D. 1792-93)—see above: sections 25-31 relate to vacancies in the office of Member

of Council: under section 34 the Governor can appoint a provisional Member of Council: section 37 refers to their resignation of their office: by section 137 Members of Council are prevented from trading. 37 Geo. III, c. 142, s. 10 (A.D. 1796-97) —see above. 39 and 40 Geo. III, c. 79 (A.D. 1799-1800), an Act for establishing further regulations for the government of the British territories in India, and the better administration of justice within the same: section 12 prescribes that the senior Member shall preside at the Council in the absence of the Governor. 53 Geo. III, c. 155, s. 89 (A.D. 1812-13), an Act for continuing in the East India Company for a further term the possession of the British territories in India, together with certain exclusive privileges; for establishing further regulations for the government of the said territories, and the better administration of justice within the same, and for regulating the trade to and from the places within the limits of the said Company's charter: section 82 declares that the office of Member of Council may be conferred on any Covenanted Civilian who has been actually resident in India for ten years: section 89 fixes the passage money, &c., of Members of Council. 3 and 4 Wm. IV, c. 85 (A.D. 1833)—see above: under section 57 the number of councillors may be reduced: by section 63 the senior Member of Council becomes Governor in the event of a vacancy in that office, there being no successor on the spot: section 64 relates to vacancies in the office of Member of Council: section 76 fixes the salary of a Member of Council: section 79, resignation of office by a Member of Council. 24 and 25 Vic., c. 67, ss. 26, 27, 34 (A.D. 1861)—see above). 32 and 33 Vic., c. 97 (A.D. 1869), an Act to amend in certain respects the Act for the better government of India: by section 8 Members of Council are appointed by the Queen. 43 Vic., c. 3, s. 2 (A.D. 1880)—see above. The detailed law on the subject is shown under the heading "Member of Council" in Vol. II, App. LIV.

82. The Chief Secretary and other Secretaries to Government are referred to in the following enactments. 33 Geo. III, c. 52 (A.D. 1792-93)—see above: section 39 prescribes that all proceedings of the Governor in Council shall be signed by the Chief Secretary. 53 Geo. III, c. 155 (A.D. 1812-13)—see above: section 79 provides that proceedings of Government may be signed by the principal Secretary of the department in the absence of the Chief Secretary. 24 and 25 Vic., c. 54 (A.D. 1861), an Act to confirm certain appointments in India and to amend the law concerning the Civil Service there: by section 2 Secretaries and Under Secretaries to Government must be Covenanted Civil Servants. India Act II of 1834—Secretaries to Government to exercise powers of Chief Secretary.

83. The law relating to the administration of the country generally must be found throughout the different portions of this volume.

GENERAL ESTABLISHMENTS.

84. Covenanted Civil Service.—The regular strength of the Covenanted Civil Service in Madras, present and absent on leave, is usually taken to be about 155. The appointments in this Presidency reserved under the Act of Parliament, 24 and 25 Vic. c. 54 (A.D. 1861), for Covenanted Civilians are the following:—2 Members of Council, 2 Judges of the High Court, 21 Judges, 3 Members of the Board of Revenue, 2 Secretaries to Government, 21 Collectors, 2 Secretaries to the Board of Revenue, 1 Collector of Customs and of Madras, 1 Commissioner of Salt and Abkarry Revenue, 2 Principal Assistants (Vizagapatam District and Ganjam District), 13 Sub-Collectors, 2 Under Secretaries to Government, 2 Senior Assistants (in Ganjam and Vizagapatam), 18 Head Assistants, 4 Special Assistants. In speaking of appointments being reserved by law for covenanted officers, it must be mentioned that, under section 6 of the Act of Parliament, 33 Vic. c. III (A.D. 1870), the Government of India has power, subject to such rules as may be from time to time prescribed by the Governor-General in Council and sanctioned by the Secretary of State in Council, to appoint natives of India direct to the service in supersession of any such law. The rules made under this enactment were published in August 1879, and since then one native of India has been appointed annually in this Presidency. The probationers for the Native Civil

Service receive Rupees 200 a month at the commencement of their service, rising to Rupees 250 after passing the lower standard examination prescribed for Covenanted Civilians, when they are confirmed in their appointments. No promotion or increase of pay is attainable until the higher standard examination has been passed. The Governor-General in Council has the power to dispense with the services of any Native Civilian appointed under the Statutory Rules who may fail to pass by the higher standard within a reasonable time. Native Civilians appointed in India under these rules can only draw two-thirds of the salary drawn by Civilians of the same standing who entered the service in England. The following appointments are held by Covenanted Civilians by usage though not by law:—1 Resident at Travancore, 1 Registrar of the High Court, 1 Director of Revenue Settlement and Agriculture, 1 Deputy Director of Revenue Settlement and 1 Deputy Commissioner of Salt Revenue. A certain number of the mofussil Small Cause Court Judgeships were formerly held by Covenanted Civilians, but Subordinate Judgeships are now filled by uncovenanted officers. The position occupied by a Junior Civilian as an Assistant, and until he acts in one of the posts detailed above, is not reckoned as an appointment. There are altogether rather less than 100 appointments ordinarily available to the service, and the service is kept at such a strength that, allowing for absentees, a Junior Civilian will get his first acting appointment in the lowest grade at about the close of his fourth year after arrival in the country. The ordinary annual recruitment calculated so as to ensure these results is about 7, giving an average of 28 Junior Civilians who will be at any one time not yet provided with an appointment. Recruitment in the Civil Service has not always been regular; prior to 1861 there was a large under-recruitment, followed in the years 1862, 1863, and 1864 by a correspondingly large over-recruitment. A second under-recruitment occurred after the year 1869. These measures have produced inequality in the promotion of existing members of the service. To remove this inequality minimum guaranteed allowances have been sanctioned for members of the service for 5 years from 1st April 1882 at the following rates:—during the 6th years' service, Rupees 550; during the 7th and 8th years' service, Rupees 660; during the 9th and 10th years' service, Rupees 700; during the 11th years' service, Rupees 800; during the 12th and 13th years' service, Rupees 900; during the 14th years' service, Rupees 1,000; after completion of 14 years' service, Rupees 1,200. Younger members of the service are necessarily employed in the Revenue branch, as there are no junior Judicial employments. The Covenanted Civil Service is so called, because each member of the service, before leaving England, enters into a covenant with the Secretary of State, wherein his privileges are recited, and in which he binds himself to certain conditions. The rank of civil servants commences from the date of arrival at Madras of the first civil servant of their year; and being thus determined, they belong to classes as follows:—While under twelve years' standing to class V; from the thirteenth to the end of the eighteenth year to class IV; from the nineteenth to the end of the twenty-third year to class III; from the twenty-fourth to the end of the thirty-first year to class II; from and after the thirty-first year to class I. Leave granted to the Covenanted Service is regulated by the Imperial Civil Leave Code; and similarly their acting allowances are regulated by the Imperial Acting Allowance Code. For pension they fall under the operation of special rules attached to the Imperial Civil Pension Code. Contributions towards the pension at the rate of 4 per cent. on allowances are deducted monthly by Government from the pay of each member. Figures are not available since 1874, but down to that date contributors paid on the average for £381 out of the £1,000 allotted as pension. The Covenanted Service has a Provident Fund for widows, orphans, and sick-members; this is managed by seven trustees and a Secretary, but the enjoyment of certain privileges at the hands of Government gives the Fund a quasi-public character. The detailed law in relation to the Covenanted Civil Service is shown under the head of "Covenanted Civil Service" in Vol. II, App. LIV.

85. STAFF CORPS.—The Staff Corps, which provides officers for military duties, for duty in the civil branches of the army, and for purely civil duties, numbers in this Presidency about 516 officers; of these, about 98 are employed in civil duties, that is to say, in the Political, Public Works, Police, Survey, and Forest Departments, and 418, including unemployed officers, are in military employ-

ment. The Staff Corps was formed originally of such officers of the Company's regiments as elected to join it after the Mutiny; it is now supplied by young Queen's officers who have undergone an examination and a year's probation with a native corps. The Staff Corps are for the most part under separate Military rules as regards leave and pension. The table at foot showing the statistics of a recent date gives further particulars as to numbers.[1]

86. MISCELLANEOUS SUPERIOR OFFICERS.—There are certain other officers who though not belonging to the Covenanted Civil Service, or to the Army, are sent out from England under a covenant. Such are the higher officers of the Educational Department, nearly all Graduates of Universities of the United Kingdom. To this class also belong the Civil Engineers trained in the Royal College of Civil Engineering at Cooper's Hill. Forest officers sent from England after having been professionally educated in the forest schools of France and Germany also come under these classes. Such also are the Scientific officers, Astronomer, Meteorological Reporter, Director of Government Cinchona Plantations, Government Quinologist, Superintendent of the School of Arts, &c. The Indian Medical Service is in part employed with the native army and in part on civil medical duties. This service originated with the staff attached by the East India Company to its military establishment, and although the majority of its members are in civil employ, all of them are still ranked as Military Surgeons. The grades of Medical Officers in the Indian Medical Service are six in number, viz. :—Surgeon-General, Deputy Surgeon-General, Brigade Surgeon, Surgeon-Major, Surgeon, and Surgeon on probation. The Professors of the Madras Medical College are taken from its ranks. The Veterinary Department of the Indian Army has long since ceased to be recruited, the junior officer in this branch having been appointed in 1859.

87. UNCOVENANTED CIVIL SERVICE.—The Uncovenanted Civil Service comprises every person in the employ of Government other than a covenanted civilian or an officer of the army who is in receipt of 10 rupees a month and upwards. The Uncovenanted Service in former days did little more than supply clerks for the various public offices. An Act of Parliament of 1793, in extending the East India Company's charter for another period of twenty years, provided among other things that no office, place or appointment in the "civil line" of the Company's Indian service should be filled up except by the appointment of a "civil servant," that is to say, a member of what is now the covenanted agency. The Uncovenanted Service had thus no recognized existence at the end of the last century, and matters remained on this footing until the Civil Service Act of 1861 was passed by Parliament. The Civil Service Act provides that, with the exception of certain reserved appointments there detailed as belonging to the Covenanted Civil Service, all offices shall be open; thus giving legal recognition to the uncovenanted branch of the service. In 1859 a considerable improvement was made in the status of the Uncovenanted Service by the creation of the class of Deputy Collectors. About the same time the appointments of Presidency Magistrates and Judges of the Small Cause Courts were thrown open to natives of India. The reorganization of the Salt Department in 1881 has also opened out a considerable number of appointments to the

[1] STAFF CORPS.

Lieutenant-General.	Major-Generals.	Colonels with Colonel's allowances.	Brevet Colonel and Lieutenant-Colonels.		Majors.		Captains.		Lieutenants.	
			Military Employ.	Civil Employ.	Military Employ.	Civil Employ.	Military Employ.	Civil Employ.	Military Employ.	Civil Employ.
1	6	17 2 in Military employ; 15 unemployed.	149	65	44	22	28	9	173	2
	Total 6	Total 17	Total 214		Total 66		Total 37		Total 175	

Uncovenanted Service. In 1877 the nine assistants to the Chief Secretary, the Revenue Secretary, the Military Secretary, and the Public Works Secretary, were classed as gazetted appointments. By collating the budget lists of establishments it appears that there are not less than 16,000 members of the Uncovenanted Service proper. The principal administrative grades of the Revenue and Judicial branches of the Uncovenanted Service are those of Deputy Collector, Tahsildar, Deputy Tahsildar, Subordinate Judge and District Moonsif. There are sixty-three, permanent and temporary, Deputy Collectors at present in the Presidency at salaries ranging from Rupees 250 to Rupees 700, a hundred and fifty-five Tahsildars with salaries ranging from Rupees 150 to Rupees 250, a hundred and seventy-eight Deputy Tahsildars with salaries ranging from Rupees 70 to Rupees 150, fourteen Subordinate Judges with salaries ranging from Rupees 500 to Rs. 800 and a hundred and eleven District Moonsifs with salaries ranging from Rupees 200 to Rupees 400. The departments of Government other than the Revenue and the Judicial, as for instance the Account Offices, the Educational, Registration, Stamps, Medical, Police, Jails, Public Works and Railway Departments, and the Uncovenanted Secretariat, contain a large number of well paid appointments. At the Presidency town there are several miscellaneous appointments with salaries ranging up to Rupees 1,500 which are open to members of the Uncovenanted Service. Since 1879 no person other than a native of India can be appointed to an office carrying a salary of Rupees 200 a month or upwards without the previous sanction of the Governor-General in Council in each case, unless the proposed appointment falls under one or other of the following conditions, viz. :—(1) that the person to be appointed belongs to the Covenanted Civil Service, or to the Staff Corps; (2) that the person to be appointed was originally nominated either to the Financial Department by the Governor-General after examination, the Forest Department by the Secretary of State or by the Governor-General after examination, or to the Educational Department by the Secretary of State; (3) that the person to be appointed entered the branch of the department in which he is to be promoted before the 1st January 1879; and that the office to which appointment is to be made belongs to either the Opium, Salt, Customs, Survey, Mint, Public Works or Police Department. The definition of "Natives of India" adopted for the purposes of this order is that contained in section 6 of the Act of Parliament, 33 Vic., cap. 3, which says: "For the purposes of this Act, the words 'Natives of India' shall include any person born and domiciled within the dominions of Her Majesty in India, of parents habitually resident in India, and not established there for temporary purposes only." "Persons born and domiciled," &c., within the territories of Indian Princes tributary to, or in alliance with, Her Majesty are also considered "Natives of India." The proportion of the Uncovenanted Service proper to total population was in 1877-78 about one in 1,980 or about ·05 per cent. The Covenanted Civil Service combined with Staff Corps officers in civil employ numbered in 1877-78 about 300, giving a proportion to total population of about one in 105,323, or about ·0009 per cent. These figures give an idea of the numerical strength of the Uncovenanted Service. The Uncovenanted Service is for pensionary purposes under the Civil Pension Code, and in that respect all its members are on the same footing. Some of its members, though not all, are provided with leave rules under the Civil Leave Code. The table below shows the exact number of uncovenanted servants at a recent date as above defined.[2]

[2] NUMBER OF UNCOVENANTED SERVANTS.

Collectors' Huzoor and Talooks ...	4,174	Police ...	3,065
Abkarry ...	52	Jails ...	224
Law and Justice ...	3,293	Registration ...	98
Inam Commission ...	7	Printing ...	302
Stamps ...	37	Government Farms ...	13
Observatory ...	17	Government Botanical Garden ...	4
Salt ...	359	Office of the Commissioner for the Uncovenanted Civil Service Examination ...	4
Administration ...	454	Stamping Weights and Measures ...	25
Director of Revenue Settlement ...	496	Birth and Death Registration ...	38
Director of Revenue Survey ...	1,523	Medical ...	271
Ecclesiastical ...	28	Education ...	698
Political ...	72		
Forest ...	177	Total ...	15,943
Marine ...	179		
Customs ...	320		
District Post ...	13		

88. SUBORDINATE CIVIL AGENCY.—Below the Uncovenanted Civil Service is a large class of Government servants, with important duties, but whose salaries nevertheless do not place them in that class. The sub-division of the soil into so many independent interests necessitates in particular a large staff of Government officials in connection with revenue administration. Each village has its staff of officials, of whom the most important are the head of the village and magistrate, the accountant, the watchman, and the distributor of water. These will be more particularly described hereafter. If to these are added the large number of peons and other ministerial servants in Government employ, we shall obtain a total under the present head of probably not less than half a lakh of persons. Village servants have no pensions; the rest are provided for under the Civil Pension Code. There are no codified leave rules for this class of public servants.

89. MISCELLANEOUS.—In Vol. II, App. LXXXI, will be found statements showing the prescribed scale of allowances for different superior civil and staff officers for this Presidency, in Vol. II, App. XCII, a table showing the pay of the Covenanted Civil Service in acting appointments, in Vol. II, App. XCIII, the rules for public officials holding lands or being concerned with mercantile speculation, in Vol. II, App. LXXXVI, a list showing the location of Government offices at the Presidency town, in Vol. II, App. XCIV, a list of the heads of executive departments, in Vol. II, App. LXXVIII the warrant of precedence now in force for all officers whose rank is graded as far as the warrant affects this Presidency, and in Vol. II, App. LXXIX the list of salutes due to European functionaries and to Native princes and chiefs throughout India. The statement at foot gives a list of the gazetted officers of the Presidency [3]; a "gazetted officer" being defined, as

[3] LIST OF GAZETTED OFFICERS.

Accountant-General.
Do. Deputy.
Do. Assistant, 2.
Accountant-General's Office, Chief Superintendent, 1.
Do. Superior Ministerial Officer, 1.
Adjutant-General.
Administrator-General.
Advocate-General.
Agent, British Consular, Pondicherry.
Agent, British Consular, Caricaul.
Agricultural College, Principal, 1.
Do. Reporter to Government.
Aides-de-Camp, Governor's Staff, 5.
Do. Commander-in-Chief's Staff, 2.
Archdeacon, Ven'ble, the.
Architect to Government, Consulting.
Assistant Registrars, High Court, 2.
Barrack Master.
Bellary College, Head Master.
Bishop, the Lord.
Board of Revenue, 1st Member.
Do. 2nd do.
Do. 3rd do.
Do. Secretary.
Do. Sub-Secretary.
Board of Examiners, Secretary.
Calicut College, Head Master.
Cantonment Magistrates, 3.
Civil Engineering College, Principal.
Chaplains, Church of England, 39.
Do. Church of Scotland, 3.
Chaplain, Sr., Church of Scotland.
Clerk of the Crown.
Clothing, Supt. and Agent for Army.
Combaconam College, Principal.
Commander-in-Chief.
Commissary-General.
Commissioner for Paper Currency.
Commissioner of Police.
Do. Deputy.
Consulting Engineer for Railways.
Coroner of Madras.
Council, Executive, Civil Members, 2.
Covenanted Civilians, 1st class of 31 years' standing, 3.
Do. 2nd class of 23 do. 13.
Do. 3rd class of 18 do. 44.
Do. 4th class of 12 do. 22.
Do. 5th class of less than 12 years' standing, 69.
Crown Prosecutor.
Cuddalore College, Head Master.
Customs, Collector of Sea, and Protector of Emigrants.
Customs, Deputy Collector of Sea, 1.
Deputy Registrar, High Court, 1.
Director of Public Instruction.
Director of Government Cinchona Plantations, Parks and Gardens.
District Medical and Sanitary Officers, 1st-class stations, 6.
Do. do. 2nd-class do. 25.
District Moonsifs, 1st grade, 25.
Do. 2nd grade, 25.
Do. 3rd grade, 25.
Do. 4th grade, 31.
Engineer, Chief, Public Works Department.
Examiner, Public Works Accounts.
Farms, Superintendent, Government.
Forests, Senior Conservator of, 1.
Do. Junior Conservator of, 1.
Do. Deputy Conservators, 1st grade, 3.
Do. do. 2nd grade, 3.
Do. do. 3rd grade, 4.
Do. do. 4th grade, 4.
Do. Assistant Conservators, 1st grade, 4.
Do. do. 2nd and 3rd grades, 4.
Governor of Fort Saint George.
Government Agent, Chepauk, and Paymaster of Carnatic Stipends.
Government Astronomer.
Government Normal School, Principal of.
Government Pleader.
Government Solicitor.
Health Officer.
Inspector of Local Fund Accounts, 1.
Inspectors of Schools, 7.
Inspectress of Girls' Schools, 1.
Jails, Inspector-General, 1.
Do. Central, Superintendents, 1st class, 4.
Do. do. do. 2nd class, 4.
Justice, Chief, High Court.
Judges, Puisne, High Court, 4.
Judges, Small Cause Court, 3.
Judges' Clerk and Commissioner of the High Court.
Law Reporter.
Lunatic Asylum, Superintendent of, Madras.
Magistrates, Presidency, 4.
Mangalore College, Head Master.
Master Attendant, Madras.
Do. Deputy.
Do. 1st Assistant.
Do. 2nd do.
Medical College, Principal.
Do. Professors, 10.
Meteorological Reporter.
Museum, Superintendent, Government Central.

already stated, as an officer whose appointment or leave is notified by Government in the Fort St. George Gazette. Vol. II, App. LXXVI, shows the head-quarter stations of all the gazetted officers of the Presidency. Vol. II, App. LV, gives particulars as to the charges of all Revenue officers from Collector to Deputy Tahsildar. The table at foot [4] shows the Government holidays applicable to offices at the Presi-

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Penitentiary, Superintendent of Prisons for the Town of Madras.
Police, Inspector-General, 1.
Do. Deputy Inspector-General, Southern Range, 1.
Do. do. Northern Range, 1.
Do. do. Central Range, 1.
Do. Assistant Inspector-General, 1.
Do. Commissioner, 1.
Do. Deputy Commissioner, 1.
Do. Assistant Commissioner, 1.
Do. District Superintendents of 1st grade, 2.
Do. do. of 2nd grade, 7.
Do. do. of 3rd grade, 13.
Do. Assistant Superintendents, 20.
Political Agent for French Settlement of Caricaul.
Do. do. of Mahé.
Do. do. of Pondicherry.
Do. do. of Poodoocottah.
Do. do. of Sundoor.
Port Officers, 11.
Postmaster-General, Madras.
Postmaster, Presidency.
President of the Madras Municipal Commission.
Presidency College, Principal of.
Do. Professors, 6.
Do. Assistant Professor.
Do. Senior Professor of Law.
Do. Junior Professor of Law.
Presidency Surgeons, 14.
Quartermaster-General.
Rajahmundry College, Head Master.
Do. 1st Assistant Master.
Registrar of the Diocese.
Do. A.S., High Court.
Do. Deputy.
Do. O.S., High Court.
Do. Small Cause Court.
Do. Madras, and of Joint Stock Companies.
Do. of Books.
Resident in Travancore and Cochin.
Do. Assistant.
Revenue Settlement and Agriculture, Director, 1.
Do. Deputy Directors, 1st grade, 2.
Do. do. 2nd grade, 2.
Do. Assistant Directors, 2.
Revenue Survey, Superintendent of.
Do. Deputy Superintendents, 1st class, 2.
Do. do. 2nd class, 3.
Do. Assistant Superintendents, 1st class, 4.
Do. do. 2nd class, 4.
Do. Probationers, 2.
Registration, Inspector-General, 1.
Do. District Registrars, 1st class, 1.
Do. do. 2nd class, 1.
Do. do. 3rd class, 3.
Do. do. 4th class, 4.
Do. do. 5th class, 6.
Registration, District Registrars, 6th class, 6.
Do. do. 7th class, 1.
Salt Revenue, Commissioner, 1.
Do. Deputy Commissioners, 2.
Do. Personal Assistant to Commissioner, 1.
Do. Assistant Commissioners, 1st grade, 1.
Do. do. 2nd grade, 2.
Do. do. 3rd grade, 2.
Do. do. 4th grade, 2.
Sanitary Commissioner.
School of Arts, Superintendent.
Secretariat, Government, Chief—Secretary.
Do. do. Under Secretary.
Do. do. Assistant Secretary.
Do. do. Revenue—Secretary.
Do. do. do. Under Secretary.
Do. do. Military—Secretary.
Do. do. P. W.—Secretary.
Do. do. Under Secretary.
Do. do. Joint Secretary, Irrigation.
Do. do. Under Secretary, Irrigation.
Do. do. Joint Secretary, Railway.
Secretary, Private, Governor's Staff.
Do. Military, do.
Do. do. Commander-in-Chief's Staff.
Sheriff of Madras.
Stamps and Stationery, Superintendent of.
Subordinate Judges, 14.
Surgeon-General with the Government of Madras.
Surgeon-General with the Government of Madras, Secretary to.
Surgeon to His Excellency the Governor.
Surgeons, Honorary, in civil medical charge, 4.
Do. Native, 3.
Do. Assistant, 17.
Travancore, Residency Surgeon.
Telegraphs, Chief Superintendent of—, Madras Division.
Translator to Government, Tamul.
Do. Teloogoo.
Do. Canarese.
Do. Malayalam.
Do. Persian and Hindostany.
Uncovenanted Deputy Collectors, 1st class, 1.
Do. 2nd class, 4.
Do. 3rd class, 8.
Do. 4th class, 17.
Do. 5th class, 12.
Do. 6th class, 8.
Uncovenanted Civil Service Examinations, Commissioner.
Do. do. Secretary.
University, Madras, Vice-Chancellor.
Vaccination, Inspector of— and Deputy Sanitary Commissioner.
Veterinary Lecturer, Sydapett.

[4] GOVERNMENT HOLIDAYS APPLICABLE TO OFFICES AT THE PRESIDENCY TOWN.

General, for all classes.

Christmas	Number of days as announced by Govt.
Easter	ditto.
Queen's Birthday	1 day.

Special, for Christians.

Ash Wednesday	1 day.
Ascension Day	1 „

Special, for Roman Catholics.

Corpus Christi	1 day.

Special, for Hindoos.

Pongul	2 days.
Mahaulya Amavausya	1 „
Dusserah feast	1 „
Deepauvaly feast	1 „
Lunar Eclipse	1 „
Solar Eclipse	1 day.
Mooccoty Yecaudashy	1 „

Special, for Veishnava sect.

Triplicane feast	1 day.
Shree Jayanty	1 „

Special, for Shiva sect.

Maha Sivarautry	1 day.

Special, for Teloogoo and Tamul speaking classes.

New Year day	1 day.

Special, for classes wearing Thread.

Avaniyavittam	1 day.

Special, for Mahomedans.

Buckreed	2 days.
Moharram	4 „
Shab i baraut	1 „
Yee-di-Ramzan	2 „

dency town. The next table gives the Government holidays applicable to up-country offices.[5] No class of servants can have more than ten special holidays throughout the year. All public offices throughout the country must be closed on Sundays, and public officers are prohibited from assuming charge of their offices on that day. The last Saturday of the month is also a holiday throughout the Presidency. Under section 25 of the Negotiable Instruments Act, No. XXVI of 1881, Sundays, Good Friday, Christmas day, and New Year's day are holidays for the public generally. Under the same section the Government have authority to add to the number, and five or six are generally so added. Officials are given the benefit of these public holidays. In the article on Land Revenue, Establishments, will be found a full account of those establishments.

RECORDS AND OFFICE ROUTINE.

90. INTRODUCTION.—The Secretariat records are to the Executive Government what case-law is to the judge, and the English Government in India has always been noticeable for its adherence to precedent. Of late the stress of business and the multiplication of the records themselves have been so great, that increased attention to the details of record-keeping has been found necessary. The two main principles in the regulation of records are, first to ensure their security, secondly to provide a means for easily referring to them. Side by side with the record-system of public offices, and in some way dependent on it, is the routine system for conduct of business. This is for the most part unwritten. The routine of the English Government is not in any marked way different from that of the Native Governments which it succeeded. Of late years however improvements have been made in detail, with a view to greater co-ordination of parts and economy of labour.

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[5] GOVERNMENT HOLIDAYS APPLICABLE TO UP-COUNTRY OFFICES.—The general holidays allowed in up-country offices are the same as those given in the Presidency town. The special holidays for Christians and Mahomedans are also identical. The following are the special holidays allowed in the several districts for particular sects of Hindoos. Holidays for Lunar and Solar eclipses are granted by local officers when necessary. For offices in the Madras collectorate, the holidays sanctioned are the same as those sanctioned for the central offices :—

Holidays.	Ganjam.		Vizagapatam.		Godavery.		Kistna.		Nellore.		Cuddapah.		Bellary.		Kurnool.		North Arcot.		South Arcot.		Tanjore.		Trichinopoly.		Madura.		Tinnevelly.		Coimbatore.		Salem.		Canara.		Malabar.	
	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.	Veishnava.	Shiva.
Shravana Powrnamy (to those wearing thread)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Samvatsaraudy or New Year ...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	...	...	1	1	1	1	1	1	1	1
Ratotsavam or Car feast	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Ananta Vratam	...	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...
Vinayak Chatoorty	...	1	...	1	...	...	1	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1
Vara Lutchmee Vratam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Dusserah	3	3	2	2	2	1	1	1	2	2	3	3	3	3	3	3	2	2	2	2	2	2	1	1	1	1	2	2	1	1	2	2	2	2	2	2
Sivarautry	...	1	...	1	...	...	1	1	...	1	...	1	...	...	...	1	...	1	...	1	...	1	...	1	...	...	...	1	...	1	...	1	...	1	...	1
Dolotsavam	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shreeramanavamy	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...
Krishnashtamy	1	...	1	...	1	1	...	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	...	...	1	...	1	...	1	...	1	...	1	...
Deepauvaly or Naracausoora Chatoordashy	1	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mahaulya Amavausya	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	...	...	1	1	1	1	1	1	...	...	1	1
Pongal or Macara Sancramanam ...	...	...	2	2	2	1	1	1	2	2	1	1	1	...	1	1	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	...	...	1	1
Southern Solstice	...	...	...	...	...	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Veicoonta Yecaudashy	...	...	1	...	1	1	...	...	1	...	...	...	...	...	1	...	1	...	1	...	1	...	...	...	...	...	1	...	1	...	1	...	1	...	...	...
Tiroonacshattram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Narsimha Jayanty	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Pathinettaumperkoo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ratasaptamy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Audipundigay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tiroocartigay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...
Tiroocalyaunam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...
Grand festival at Alagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...
Auvanimoolam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alwar Tiroonagary feast	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Eippasy Vishoo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Nagapanchamy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...
Toola Amavausya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tei and Auny Amavausya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Triplicane or Kalattipett	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trivettore and Mylapore feasts ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	10	10	10	10	10	10	10	10	10	10	10	10	10	9	10	10	10	10	10	10	10	10	10	10	9	10	10	10	10	10	10	10	10	10	10	10

91. Records.—For record purposes each department of the Secretariat is distinct.[1] When several departments are dealt with by one establishment, as is the case in the Chief Secretariat, this distinction is not carried beyond the record room; but there it is adhered to. The method of record-keeping differs slightly in the several Secretariat Departments. The departments of the Chief Secretariat were revised in this respect in 1882, and what has been called the "disposal number" system of record and reference was introduced there. The system has been so called because under it attention is centred in the final or disposal number attached to papers, the different books of the office having relation principally to this number. As expressing the distinction between the system and those which it superseded, it might equally be called by some name indicating consecution or book-arrangement of the papers; for it has that characteristic also. The same system has been introduced into the Board of Revenue, where it was especially needed on account of the increasing complexity of business, and the difficulty of coping with this under the arrangements previously in force. The matter is explained in detail in the foot-note.[2] It has been recommended by the Board

[1] Sketch History of Secretariat Departments.—As long as Madras was but little more than a commercial agency, only one Secretariat Department existed, under the name of Public Department; but when the Presidency became the seat of Government, it was found necessary to form other Secretariat Departments for the administration of its different affairs. The table below exhibits the dates of the year when each department of the Government Office began to have separate consultations or proceedings of its own, with particulars as to their continuance or cessation:—

Name of Department.	In what year instituted.	Particulars of change, if any.	Name of Department.	In what year instituted.	Particulars of change, if any.
Public Department.	1670		Foreign Dept.	1816	Discontinued in 1847.
Military do. ...	1752		Ecclesiastical do.	1818	
Revenue do. ...	1774		Marine do.	1838	
Secret do. ...	1796	Discontinued in 1852.	Public Works do.	1843	
Judicial do. ...	1798		Railway do.	1853	Now a branch of the Public Works Dept.
Political do. ...	1800				
Financial do. ...	1811		Legislative do.	1862	
Commercial do. ...	1815	Discontinued in 1848.	Petition do.	1815	Discontinued in 1882.
Law do. ...	1815	Discontinued in 1857.	Pension do.	1861	

[2] Sketch Account of the Disposal-number System of Record and Reference.—*Village Accountants' Records.*—The oldest indigenous method of record-keeping is that of the village accountant. He ties the records together with little or no arrangement in a bundle made of cotton cloth. For the classification he trusts to his memory. This bundle is called by the English a "dufter," though the original Hindostany word has not that meaning. (2) *Records of native cutcherries.*—In larger native offices the cloth bundle is still the basis of the arrangements. Papers are however arranged by dates, either of receipt or despatch. The received papers are invariably placed in one bundle, and the despatched papers in another. When these two appertain to each other, the idea of actually connecting them has at this stage of record-keeping not occurred. A connection is established only by means of annotated entries. Miscellaneous papers, which are numerous and sometimes important, are not treated on any definite principle. In some cases they are made into separate bundles by themselves; but they are frequently neglected, and are the source of much trouble and confusion. When there are several distinct series of correspondence, as for instance in the case of a Tahsildar dealing with superior authorities, with Deputy Tahsildars, or with Revenue Inspectors; a set of date bundles is put aside for each such series, thus forming a rough classification. Where the office is large enough to require a reference system, this is obtained by ledgers corresponding to the date-bundles; each paper being posted in the ledgers. To find a paper, the eye must be run through the ledger; there is no other method of reference. On the abstraction of records there is no check, other than that of the ledgers just mentioned. There is no system of voucher for records taken out for use. (3) *Introduction of serial numbers.*—Though the English offices in the districts have in the main merely taken over the native system just described, miscellaneous improvements have grown up with the increased size of offices. The addition of serial numbers to the dates is a comparatively recent arrangement. As applied in the districts this is not of much importance, for little or no use is made of the serial number. It is noteworthy however as forming the germ of the latest improvements devised. (4) *Paste-books and copy-books.*—Another development is that of keeping the more important papers together in books; when received papers, by pasting them into books, and when despatched papers, by copying them into books. This method, if an advance for purposes of security, is the reverse for purposes of perusing the papers. For though it may be suitable to an office where only one or two persons have to use the records, it is obviously unsuitable where the records have to be dealt with simultaneously by many persons. (5) *The subject bundle system.*—This system has been devised of late years in certain offices supervised by Europeans. It consists of keeping the papers separate and not formed into books, yet of grouping them together into subjects and so tying them up. Registers carry the items from the received or despatched entries into the bundles where they are to be found. This method is only suitable as long as it can be certain that the papers will always be required in that particular connection and in no other. With a shifting administration, the classification of to-day may be unsuitable for the requirements of to-morrow. The subject bundles then become an incumbrance instead of an assistance. This method has not had much currency, and cannot be said to have been a success. (6) *The alphabetical index.*—This is a European invention. It was introduced some years ago, and combined with the system of serial numbers has developed into the system which forms the subject of the present note. In all stages but the last however the alphabetical index has been only partially applied. Again the serial number question has been left quite undefined; that is to say the alphabetical index has operated first on one, and then on another part of the record system. (7) *The Board of Revenue record system, immediately preceding the introduction of the disposal-number system.*—The office of the Board of Revenue is the largest and most complex office of the Presidency. It stands between the Secretariat offices and the district offices. Its condition prior to the introduction of the latest record system may be considered typical, and can thus be summarized. If a paper which reached the Board was composed of several parts, as a letter and enclosures, these parts came up detached from one another. As the practice was to fold each paper twice

of Revenue for general imitation in the districts, and it has now been introduced in detail into the head-quarter offices of three collectorates. The record systems of the various heads of departments or subordinate offices within the departments cannot here be detailed. Various stages can be traced between the indigenous native systems of record-keeping and the system observed in the superior English offices. The different offices are in all these stages. The records of the principal revenue offices in the mofussil are, with the exceptions mentioned above, treated in the same manner as were those of the Revenue Board prior to 1882. The records of the native cutcherries are for the most part in the same stage as they were a century back. The records of Government both in the districts and at head-quarters contain a large fund of information; but the process of digesting them, and of reducing their bulk by rejecting what is useless, forms a constantly recurring labour. In the foot-note are shown the different attempts which have been made to do this for the Secretariat records.[3] The next note [4] gives a

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vertically, an arrangement suitable to the cloth dufter, they were necessarily detached. Again when a bundle of papers was made up in the office for the despatch of business, say for the consideration of a letter so received, the component parts of the bundle were similarly detached, and for the same reason. It is needless to say that it was difficult to keep papers duly arranged, or to obtain a connected view of them, under this system. It was the cause of great delay. When the papers after being utilized were distributed and put away in record, the received papers (technically called "currents") were put away in one place, and the orders passed on concluding papers (technically called "disposals") were put away in another. To find them again double referencing was necessary. In the arrangement of the records the practice was to keep them in dufters, that is to say packages, each containing the papers of one month and one district. The papers lay loose and unclassified in each dufter. No check was exercised on the contents of a dufter, and if a paper was removed no voucher was taken, and the destination of the paper could only be ascertained after considerable search. The register of received papers was not systematically closed, and it afforded no guide therefore either to the tracing of papers, or to the check of arrears accruing in the office. There was no method for checking the length of time for which a paper was kept by any person or branch of the office. It may be added that each step in the transaction of the Board's business, however trifling or temporary, was marked by a separate "disposal;" thus making an immense number of items in the total records. There was no arrangement for connecting the records of the past, present, and future (technically called "chaining"). As to the arrangements for finding the records (technically called "referencing"), a mixed method prevailed; the books and indexes bearing partly on received number, partly on date, and partly on disposal number. The subject indexes which were in force were not prepared currently, and could only be used some months after the disposal of papers. (8) *Record system of the Chief Secretariat immediately preceding the introduction of the disposal number system.*—The above remarks apply in great measure to the Chief Secretariat record system as it existed prior to the introduction of the disposal-number system. Papers were received from other offices twice folded, and when more than one loosely bundled together. The papers arising in the office were also dealt with as loose papers. Previous papers or "references" were presented without method. Papers were put away in record by date, though not in dufters. No exact account was taken of papers removed from record. The index though exhaustive was so much in arrears as to be of no service for current referencing. In all other particulars, the remarks made above regarding the Board may be repeated. (9) *The disposal-number system.*—The disposal-number system, which was introduced to remedy these different deficiencies, consists of the application of two principles; the first consecutive chronological arrangement of papers, and the second alphabetical indexing concentrated on a single series of numbers. The first process being made to lead up to the second, the whole forms a single system. It has already been introduced to the extent stated in the text. (10) *Its method of operation.*—The first step in the disposal-number system is to cause the papers to be presented in consecutive form, or in the same way as the pages of a book. This is partly with a view to mere convenience, and partly to prepare the papers for forming finally a disposal-unit, as will be hereafter described. To enable the papers to be presented in juxta-position, it is necessary to prescribe that they must not be twice folded. They must either be only once folded, or not folded at all; again like the pages of a book. It is also found very desirable to prescribe uniformity in size of paper, as in the case of a book; otherwise the papers under this method are apt to become dilapidated. Each bundle then begins with what is technically called a "current" or an initial paper; and gradually grows, one paper being attached to another, with the progress of business on that particular paper. This process is continued as long as it is convenient. If orders are passed of a temporary nature, as when further information is called for from other offices, the bundle or "file" is still kept open, and the intermediate orders still bear the initial or "current" number (at least this is the simplest course). When the manager of the office considers it desirable he closes the "file." A number is then put upon it, which cancels all previous numbers, and is thenceforth exclusively referred to in the indexes and other books of the office. As such a file may contain a number of papers, it is evident that multiplicity of records is very much diminished. The file becomes a unit for purposes of record, and the number is called the "disposal-number" whence the name of the system. The file once so made is never again broken up, and the record-keeper is responsible for its security. (11) *Its advantages.*—The disposal-number system substitutes a single principle, or at most a principle divided into two parts, for various mixed methods. Its advantages are mainly seen in great increase of convenience and rapidity of work in dealing with papers, and in security provided for the public records. Subsidiary advantages are that it enables previous papers to be "referenced" or traced in the office with greater ease, and that it provides a more methodical plan for book-keeping and check of arrears or the progress of business. The superior convenience of a "file," which approximates in character to a book, over a loose bundle of papers, requires no comment. It saves a great portion of the time of superior officers in dealing with papers, and enables routine operations to be transferred to subordinate agency. The security of the records is attained by providing that every paper shall form part of some file, that files shall be paged, and that every file shall sooner or later bear a disposal-number. A record cannot then be lost or abstracted, any more than a page can be torn from a book, without detection. The simplicity of the numbering system expedites the tracing of papers. As every paper must proceed to a disposal-number the methods of book-keeping to check progress are made more easy. (12) *Exchange of printed matter between departments.*—Though not a necessary part of the record system above-mentioned, this should be mentioned here; as illustrating a similar principle of presenting consecutive as opposed to detached matter. The steps taken in that direction are specified in para. 92 of the text. (13) *Improvements in routine.*—In offices where the disposal-number record system has been introduced, opportunity has been taken to make improvements in various routine matters, though not actually belonging to it; the changes being mostly with the object of relieving superior officers of details which can equally well be attended to by subordinates.

[3] SKETCH HISTORY OF DIGESTS OF SECRETARIAT RECORDS.—*Bruce's Annals.*—It will be observed from the first foot-note above that whilst the site of the fort was granted to the East India Company in 1639, no records have been preserved of an earlier date than 1670. The oldest record in Madras is a letter dated 9th November 1670, received to the address of "our Agent and Councell in Fort St. George." Earlier records exist in the India Office, and some of these have been abridged and published in the well-known volume entitled "Bruce's Annals," (London, 1810). It is

digest of the old Secretariat records of the Madras Government in all departments from the earliest times to the year 1854. It will be seen that the subject borders closely on history.

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possible that the earliest records kept in Madras have been destroyed by the effects of the climate. The record of 9th November, 1670, is in an advanced state of decay. (2) *Wheeler's Report.*—The first attempt to examine and classify the old records of the Secretariat in view to the destruction of those which were of no value was made in 1837 by Mr. George Garrow, a member of the Civil Service. This was productive of no practical result, as the work was limited to the "Consultations," and those only of the Public Department from 1677 to 1710; nor were any practical proposals or results recorded. In 1858 Mr. William Hudleston of the Civil Service received a commission from the Government to carry out a similar duty. He was instructed to limit himself to the records ending with the last century, as those of the current century were in fairly good order and better under command. Mr. Hudleston's other duties prevented him from carrying this duty far, but he found opportunity to make three collections of abstracts of the principal records, from 1670 to 1681. In 1860 Mr. Talboys Wheeler, Professor of Logic and Mental Philosophy in the Presidency College, was appointed to sort and collate all the records of the Secretariats excepting the seven last current years, which it is the custom always to keep separate. In the beginning of 1861 Mr. Wheeler submitted a report on the result of this examination. His classification of the old records from 1670 down to 1854 was not according to the several departments, but according to the character of the records themselves. An account of the subject-matter of the records prior to 1854 according to Mr. Wheeler's division is given in the next foot-note. The result of Mr. Wheeler's report was the destruction of a large quantity of useless records. No re-classification of the kept records was however attempted. Nor indeed did Mr. Wheeler propose it. The method in force for arranging records and referring to them is described in the text and previous foot-notes. (3) *Munro's Minutes.*—The Government next gave Mr. Wheeler a commission to prepare for publication a collection of Sir Thomas Munro's minutes, as found in the Government records. This was in 1861, but Mr. Wheeler having been transferred to a Secretariat appointment in Calcutta his undertaking fell through. In 1866 the Government took back the commission from him. Sir Alexander Arbuthnot, late Member of Council in this Presidency, published the minutes with a memoir in England in 1881. (4) *Madras in the Olden Time.*—In 1861 and 1862 Mr. Wheeler published with Messrs. Higginbotham & Co. three volumes of a book called "Madras in the Olden Time," being mostly a re-print of contributions made to the "Indian Statesman" newspaper. This publication carries the history of Madras as shown in the official records from 1639 to 1748, and forms the only separate history of the Presidency yet attempted. It is mainly composed of a transcript or abstract of the records in the Government Secretariat. (5) *Hudleston's Extracts.*—In 1871 and 1873 Mr. Hudleston's collection of abstracts above mentioned was published at the Government Press, under the title of "Notes on and Extracts from the Government Records in Fort Saint George, Madras, First, Second, and Third Series." As before mentioned these abstracts cover only eleven years. They are executed however in a manner more suited for official reference than Mr. Wheeler's popular compilations, and their continuance would have been a great benefit.

[4] Sketch Analysis of the Secretariat Records of all Departments down to 1854, arranged according to the Character of the Records.—*Introduction.*—The Government Secretariat Records are and always have been divided into so many departments; and within each department the classification of papers is according to the requirements of that department, as from time to time appearing. Features however which were common to most of the departments down to 1859 (when there was a change of nomenclature,) were the "Consultations" and the "General Letters;" the remainder, on papers not classed as either of these, forming a large miscellaneous mass. The following analysis takes the two heads, just mentioned, and subdivides the miscellaneous. As will appear from the last two foot-notes, this classification is of use for historical analysis only, and is not the classification of the current work or of the record-room. Similarly the mention of the year 1854 indicates only the date down to which this analysis of old records has been carried, and not any natural period. (1) *Government Consultations.*—These comprise a full record of the formal consultations (since 29th April 1859 specially so designated) of the President and Council of Madras from the year 1672, when the Presidency was little more than a fortified factory, down to the last year observed or 1854. The early proceedings are of the nature of chronicles. At that time all the events of the colony—commercial, political, and administrative—were recorded in the same series. The stock of European goods sent from home at various intervals, and the investments ordered to be made in Indian goods, formed then the principal matter of discussion in the Council chamber; but at the same time entries are found regarding such matters as the conduct of dependent agencies, disputes with native merchants, communications held with Surat, Bengal, and Java, the expenses of the settlement, the deaths of Company's servants, the arrival and departure of ships, the attitude of native powers, &c. After the close of the seventeenth century, the letters, accounts, and proceedings begin to be entered in a more formal and official style than before. Later again a quantity of miscellaneous matter began to be separated from the formal consultation. From April 1746 to November 1749 there is a gap in the records. This period corresponds with that during which Madras was in the possession of the French. The fort was taken by Labourdonnais in September 1746 and restored to the English in August 1749, in accordance with the treaty of Aix-la-Chapelle. During the period of French occupation of Madras, the English settlements on the Coast of Coromandel were placed under the superintendence of Fort St. David. The remaining volumes of the consultation series comprise the whole of the proceedings of the several departments of the Madras Government, including miscellaneous minutes, letters, and other similar matter, from the 11th of November 1749 to the last year observed. (2) *General Letters.*—These consist of the letters interchanged at intervals between the Government of Madras and the Board of Directors. Those "to England" contain full information respecting the affairs of this Presidency; those "from England" contain the instructions of the Board of Directors and its approval or non-approval of the Government Proceedings. As a series of Official Correspondence covering the same period as the "Consultations," these "General Letters" are invested with considerable interest, besides possessing a high literary value. They are the most important of the documents extending over a long period of time, which this Government possesses. Bruce's "Annals of the East India Company" are compiled, not from the Consultations of the President and Council, but from the "General Letters." There is no gap in this series, corresponding to the gap in the Consultations; "General Letters" being despatched and received during the whole period that Madras was in the hands of the French. (3) *Country Correspondence.*—This series comprises the whole of the correspondence which passed between the Military and Political departments and the different native powers, during the period 1753 to 1829. It is unnecessary to dilate upon the historical importance of this correspondence. The whole has been copied into bound volumes. (4) *Special Correspondence and Minutes.*—Under this head are classed certain volumes which possess historical importance, but which have lost such official value as they may have once possessed. They comprise correspondence between the Governments of Madras and Pondicherry; correspondence with Sir Robert Harland and Sir John Lindsay, respecting their powers as Royal officers; volumes of Correspondence and Minutes prepared by Lord Clive, Governor of Madras, 1798-1803, in justification of his policy; as well as some miscellaneous volumes of a similar character. The following are the principal heads:—"a" French correspondence, 1752-1760. This comprises interesting letters from Dupleix concerning the conduct of the English and Mahomed Ally; correspondence with Dupleix' successor Godeheu, concerning the suspension of arms between the French and English in India in 1754; and numerous letters from Bussy and Lally. "b" Colonel Aldercron's correspondence, 1755-56. Colonel Aldercron was Commander-in-Chief of all the Land Forces in India. This correspondence was carried on with the Governor of Madras just before the seven years' war, and chiefly refers to the claims of the French. "c" Colonel Clive's correspondence, 1756-1758. This comprises Clive's correspondence, when at Calcutta, with Sooraj ood Dowlah, Monichand, Meer Jaffer, Omichund, and others. "d" Sir John Lindsay's correspondence, 1770-1771. Lindsay came out to India with a secret commission from the Crown to carry on direct negotiations with Mahomed Ally, with reference to the latter's claims on the Company. The Madras

92. ROUTINE.—The routine operations of the ministerial staff of a Government Secretariat office may be divided into the following heads:—registering incoming papers, putting up previous papers connected therewith, translating or

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Government resented this, and finally Lindsay was recalled, Sir Robert Harland being appointed to succeed him. "e" Sir Robert Harland's correspondence 1772. This is concerned with disputes between Harland and the President and Council with respect to the powers asserted by the former as Admiral to claim soldiers in the Company's service as deserters from the King's service in Europe. "f" Lord Cornwallis and Sir John Shore on the land settlement of Bengal, Behar, and Orissa, 1789-90. "g" Political and military correspondence of Lord Mornington concerning the wars with Tippoo, 1799. "h" Correspondence during the Poligars' wars in Dindigul, 1801. "i" Lord Clive's separate correspondence, 1802. This is the second Lord Clive, Governor of Madras, and this correspondence refers generally to Mysore and Mahratta affairs. "j" Lord Clive's "Gubernatorial" correspondence, 1801-1803, being a defence of his administration against the animadversions of the Court of Directors. "k" General letters (two in number) from the Directors, respecting the private debts of the Nawabs of the Carnatic, dated 1803 and 1807. "l" Minutes of Lord William Bentinck and Sir John Cradock on military reductions, 1807. "m" Correspondence referring to the general administration of Amboyna and Banda, after their capture from the Dutch, 1810-11. (5) *Special Consultations.*—The proceedings of special consultations not entered on the ordinary records are of two kinds, those of the Public and Judicial departments, and those of the Military department. The former refer to special occurrences which have lost their official value, but are preserved as historical records. The following are the principal heads:—"a" Demand of the Dutch Governor of Negapatam, 1765. A Mr. Haksteen, on taking over the government of Negapatam, took forcible possession of his predecessor's effects from a ship in the Madras roads. The latter appealed to the English for protection, and finally the Madras Government sent a party of soldiers, who brought away the property in question. "b" Cession of the Northern Circars, 1765, 1766, and 1781. This correspondence refers to the various steps by which these districts came into the possession of the English, including the sunnuds obtained from the Great Moghul, their confirmation by the Nizam, and proposals in 1781 to restore them to the Nizam. "c" Settlement at Acheen and Quedah, 1772-73, referring to trade at these places, and the political state of the country. "d" Mr. Humphreys, a run-away editor, 1795. Humphreys issued a journal called the "Herald of India," of which the first number contained two articles sufficiently revolutionary to attract the immediate notice of Government. He was accordingly sent on board an East India man to be sent home, but made his escape, and was not recaptured. "e" Collision between the Government and the Supreme Court, 1803. A Colonel Mandeville having been cashiered by a court-martial was required to proceed to England. He was at first permitted to remain for a year on the plea of sickness and poverty. After this he pleaded a desire to prosecute a native for perjury, but was peremptorily ordered to embark. He then absconded, but was captured and put on board. One of the Supreme Court Judges then granted a writ of 'habeas corpus' as Mandeville had been bound over to prosecute, and he was delivered up, and finally reapprehended after a considerable struggle, during which he severely wounded two men. "f" Madras Government Bank, 1805-1807, containing proceedings connected with the first establishment of general bank in this Presidency.—The Military contain consultations and proceedings respecting special military subjects, such as expeditions, mutinies, and boards; but not negotiations with Foreign Powers, nor proceedings as regards individuals. The following are the principal heads:—"a" Expedition to Bengal, 1686, the earliest military operation of the Company against the Great Moghul. "b" Private committee on an expected war with France, 1755-56, it being doubtful whether the truce with France would tend to a definite treaty. If this did not come to pass it was determined to join the Mahrattas against Salaubut Jang and the French. During this time Orme, the historian, was a member of the council. "c" Proceedings respecting Colonels Smith and Wood during the war against Hyder, 1769-70, concerning irregularities in the supply of provisions for the army. "d" Preparations for seizing Pondicherry, 1771; proceedings of the secret committee. "e" Mutiny at Poonamallee, 1785, of Her Majesty's 52nd Regiment in consequence of the rejection of a claim for "batta." Submission was enforced by a detachment under Colonel Wagenheim. "f" Proceedings of the Military Board, 1786-88, comprising details of all business connected with the army. "g" Secret consultations respecting Tippoo, 1788, concerning his intrigues at Calcutta, the disaffection in his army, and rumours of a marriage between his family and that of the Nizam. "h" Manilla expedition, 1797; details of the preparations. "i" Mutiny at the Mount, 1798; trifling grievances, on the redressal of which the men return to their duty. "j" Mutiny at Vellore, 1806-7; details. "k" Proceedings at Travancore, 1808-13; attack on the Resident's house by the Diwan's troops; Travancore mutiny in 1812, when a conspiracy was formed for murdering all the European officers and subverting the British power in Travancore; the administration of the affairs of Cochin by the Travancore Resident. "l" General McDowall and seditious proceedings of the Madras Army, 1809, a matter of history. "m" Burmah expedition, 1824. Proceedings in connection with the first Burmese war. (6) *Consultations and Correspondence connected with Out-stations.*—When the East India Company was a trading Company and this Presidency was a Commercial depôt, other agencies were frequently established at out-stations. The records of these agencies were sent to Fort St. George, and many have been preserved in the Government office. The principal heads are the following:—"a" Letters sent to Subordinate Factories, 1677-78; letters received, 1687-88. Chiefly curious from their age, and generally of a commercial character. "b" Bengal Consultation Book, 1694-95. At that time the Bengal Factory was under the direction of Fort St. George. These letters are almost entirely of a commercial character. "c" Fort Malborough (in Madagascar) Records. "d" Manilla Consultations, 1762-64. Proceedings during the English occupation of Manilla, which was restored to Spain by the treaty of Paris (1763). "e" Masulipatam Consultations, 1783-86; the proceedings of the Agency at that place. (7) *Negotiations with Foreign Powers, Treaties, &c.*—Under this head are comprised conferences and negotiations with Foreign Powers, Native and European; together with letters from Commissioners and diaries of Envoys. The following are the principal heads:—"a" Infringements of the suspension of arms with France 1755-56; inquiries on the subject by Commissioners. "b" Grants and treaties from the Native Powers to the Company respecting the Madras Presidency, 1759-71. "c" Mr. Pybus' mission to Kandy, 1762. The King of Ceylon having solicited the assistance of the English against the Dutch, Mr. Pybus was sent by the Madras Government to Candy. His experiences are recorded in the form of a diary. "d" Places restored to the French by the peace of Paris, 1765. Proceedings between the Government of Fort St. George and the French Commissary. "e" Negotiations with Tippoo Sultan, 1783-84, including the violation of the armistice of Mangalore and Tippoo's insolent conduct towards the English Commissioners. "f" Deputation to Calastry, 1788. The Nawab of the Carnatic having taken possession of some of the Calastry zemindarry, a deputation was sent to report on the matter. "g" Negotiations with the Nizam's Vakeel at Calcutta, concerning his claim for peshcush on account of the Northern Circars. "h" Conferences between Sir John Kennaway and Tippoo's Vakeels, which resulted in the treaty of 1792. "i" Lord Cornwallis' letter to the Directors respecting the treaty with the Nawab, explaining his reasons for granting more indulgent terms than at first. "j" Nizam's claim to Kurnool, 1793. Lord Cornwallis forwarded copies of all the material parts of the correspondence which had passed on this subject, expressing a desire that the Madras Government should remain entirely neutral in the matter. "k" Sir Robert Chambers' mission to Candy, 1795-96. Undertaken after the capture of the Dutch settlements in Ceylon. "l" Treaty with the United States, 1796; merely a manuscript copy. "m" Sir John Malcolm's mission to Persia, 1810. This is a letter from him to Lord Minto. "n" Distress of the Dutch at Poolicat, 1813, in consequence of the wars in Europe. A committee appointed by the Madras Government to report upon the matter. "o" Restoration of the Dutch settlements to the King of the Netherlands, 1818. These are the original instruments executed at the time. (8) *Committees on Finance.*—Under this head are comprehended proceedings of committees respecting the revenue derived from the Company's jagheer and from other districts within the Madras Presidency; together with proceedings respecting the Sinking Fund and other finance questions. The following are the principal heads:—"a" Proceedings relative to the jagheer, 1764-84. The first volume refers to

abstract-making, distributing to Secretaries, circulating to members of the Government, closing the current books by disposal entries, copying orders or sending them to Press, despatching orders, entering numbers on the chain system or

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the jagheer assigned to the Company by the Nawab of the Carnatic in 1763. The second volume refers to 1784, when the finances of the Company being in a low state it was decided to let the jagheer. "b" Committee at Dindigul, 1796, to inquire into the collections, &c., of the district. "c" Committee at Colombo, 1797, to investigate the state of the revenue, &c., in Ceylon after its capture from the Dutch. "d" Committee for increasing the Post office revenue, 1798; a copy of proceedings transmitted from Calcutta for the information of the Madras Government. "e" Committee of Finance, 1798 to 1808, with a view to the reduction of the expenses of all public establishments. "f" Committee on the Sinking Fund, 1799 to 1805, established for the gradual liquidation of the debt of the Presidency. (9) *Committees and Proceedings as regards Individuals.*—These have long since lost all official value, and are merely preserved as public records. They are here placed in chronological order. The following are the principal heads:—"a" Civil Servants at Manilla, 1766-67. Proceedings of a committee appointed to inquire into the truth of certain complaints of oppression and corruption towards the Spanish population of Manilla brought against the Deputy Governor and others. "b" Complaints of the Cuddalore merchants against Mr. Calland, 1767. This is an examination into the conduct of the Agent at Cuddalore, which resulted in his removal from that post. "c" Captain Flint against Messrs. Tolson, Blacker, and Graham, 1774. These were passengers confined by the captain to their cabins for riotous behaviour. The proceedings are uninteresting. "d" Sadleir and Whitehill Committees, 1775 and 1783, to inquire into the conduct of the Agents at Coringa and Masulipatam. "e" Court-martial on Lieutenant Hall, 1784, who was charged with being the author of a libel on Colonel Nixon and Mr. Norris. He was reprimanded. "f" Proceedings relative to Turing and Ball Kistnah, 1784, illustrative of the great corruptions which prevailed in the Madras Government at the time. The proceedings consist of an examination into the petition of one Ball Kistnah, Renter of the Ganjam district, who had been dispossessed by Mr. Turing, the Resident at Ganjam. The petitioner alleged that among other expenses incurred by him, one consisted of considerable nazirs which he had given to the President, Sir Thomas Rumbold, and to the members of Council to vote in favour of the cowle. "g" Complaints against Mr. Cochrane, 1784. Proceedings of a Committee of Inquiry into the conduct of the Revenue Officer at Nagore and Negapatam, complaints having been made against his severity. The inquiry seems to have abruptly terminated in 1785. "h" Mr. Proctor's conduct at Tinnevelly, 1784; inquiry into the conduct of the receiver of revenues of Tinnevelly. "i" Proceedings respecting the ship "Elizabeth," 1787. This ship and a French frigate captured the Company's ship "Osterly." It was alleged that the "Elizabeth" belonged to some members of the Madras Council, who were said to have conveyed information to the French, through which the capture was effected. The Directors accordingly sent out orders that a strict investigation should be made, but nothing material was discovered. "j" Proceedings respecting Jaggapah Row, Mr. Floyer, &c., 1787-88. An inquiry into charges of corrupt practices. "k" Inquiry into the complaints against Veerapillay, 1788; a charge of fraud against the Head Canicapilly to the Garrison Storekeeper. "l" Murder of Carsajee Lalla, 1789. This man was Manager of the Mohiry district, and was murdered by some Zemindars. "m" Charges brought by the Rajah of Tanjore against Mr. Ram, 1790. Inquiry into charges against the Resident at Tanjore, in that he had taken upon himself a monopoly of indigo, and had demanded a large sum of money from the Rajah. "n" Complaints against the renter of the betel and tobacco farm, 1790 and 1802. Inquiry into charges against the renter of having supplied these articles of a worse quality and at a higher price than laid down in his cowle. "o" Inquiry into the accounts of Paymaster Johnston, 1790-91. The Paymaster at Trichinopoly omitted to forward his accounts for five months, and then suddenly left his post and went to Pondicherry. An inquiry resulted in his suspension. "p" Charges against Mr. John Holland, 1791. The Nawab charged Mr. Holland, then Governor of Madras, with having received from him sums amounting to five lakhs of pagodas. The Committee of Inquiry considered the charge to have been fully proved. "q" Proceedings of the Judicial Board at Negapatam relative to Mr. Aratoon Carapett, 1793-94. An action for breach of contract, chiefly curious as illustrative of the mode of procedure. "r" Right and Left Hand Castes at Pondicherry, 1794. Whilst Pondicherry was in the hands of the English, a serious fray occurred between these castes. The rioters were severely punished by the officer in command of the towns and petitioned the Government, the result being this inquiry. "s" Proceedings against Mr. Mitford, 1795-96. The export keeper having been charged by the Board of Trade with dishonesty asked for an inquiry, and the charges were judged to be unfounded. "t" Proceedings respecting the Pearl Fishery at Colombo, 1799. An inquiry into frauds connected with these fisheries. "u" Conduct of Captain Bong, 1800. This officer was employed in superintending the execution of public works in the Baramahaul, and his integrity being suspected, an inquiry was held with unsatisfactory results. "v" Proceedings against Major Davidson, 1804, a scandalous case of seduction; the inquiry terminated in the suspension of the Major. Meanwhile, in connection with the same matter, he fought a duel with the Captain of the vessel in which he had come out and killed him; he was afterwards found guilty of "wilful murder." "w" Proceedings against Colonel Oliver at the Moluccas, 1804-5. An inquiry into the conduct of this officer while in command, the charge being dishonesty. He was acquitted. "x" Proceedings against Messrs. Buchan and Smith, 1804-5. These gentlemen were respectively Chief Secretary and Accountant-General. The inquiry related to certain doubtful circumstances in the raising of a public loan. (10) *Miscellaneous Letters.*—This series comprises all the letters of minor importance connected with the various departments not recorded in the "Consultations." (11) *Reports.*—Under this head are comprised a number of miscellaneous reports, which have been forwarded at various times to the Government. The following are the principal:—"a" Zemindars in Northern Circars, 1766, containing an account of these Zemindars, their forts, forces, &c. "b" General Clavering on Military Defences, 1771. A memorandum referring to the general strength of garrisons, and what stores should be kept in hand. "c" Expense of Cavalry in India, 1785. Address on this subject sent to the Court of Directors by Mr. Parkinson, Secretary to General Smith, during the campaigns against Hyder in 1767. "d" Botanical description for the year 1790. A manuscript by Dr. Roxburgh on the cultivation and manufacture of indigo. "e" Report on the state of the Nawab's accounts, 1793. A review of the origin and progress of the Company's connection with the Nawab, an inquiry into the nature of the claims, and the decision of Government. "f" Military report on the Western Frontiers, 1793. The opinions of Captain Read as to what was necessary for the better security of this frontier. "g" Export made from Great Britain to the East Indies, 1793. Merely a copy of the printed report of the Select Committee appointed by the Court of Directors to take the subject into consideration. "h" Dr. Heyne's Botanical and other reports, 1796. Reports on various subjects by the Acting Botanist to the Company. "i" Reports of the surveys in Mysore, 1800–1802, compiled by Captain Mackenzie, Lieutenant Warren and Dr. Heyne. "j" Description of English Gunpowder, 1801, forwarded to the Madras Government by William Congreve. "k" Reports upon certain demands on the Nawab Oomdat-ool-Oomrah, 1805, containing particulars of claims by Englishmen and by the various servants of the household. "l" Annual General Reports of the Board of Revenue, 1817-30. "m" Military Fund, 1850-56. Merely a guard book containing the printed reports of the proceedings at the meetings of the Directors. "n" Debts of the late Nawab, 1855, received from the Government Agent at Chepauk. (12) *Journals and Narratives.*—Under this head are comprised journals of military proceedings, and other similar records:—"a" Revolution in Bengal, 1757. The following papers forwarded to the Madras Government from Calcutta, viz., three letters from Colonel Clive, six letters from Sooraj ood Dowlah, a journal of the military proceedings on the expedition to Moorshedabad, and a copy of the treaty executed by Meer Jaffer. "b" Journal of Lally's siege of Fort St. George, 1758-59. This record must not be confounded with the journal of the siege, written by J. Call, Chief Engineer. "c" Colonel Fullerton's Narrative, 1785. In the form of a letter addressed to Lord Macartney by Colonel Fullerton, when in command of the Southern Army. The subjects discussed are many and various. "d" Narrative of a voyage to the North-West Coast of America, 1786. A curious journal of a voyage made by Mr. Strange, of the Madras Establishment. "e" L'Abbé J. A. Dubois on the Hindoos, 1820. A corrected

otherwise connecting the paper just disposed of with previous papers on the same subject, putting away in record, checking arrears within the office, making reminder calls on other offices, preparing stock files, preparing indexes or other books required for future guidance, taking charge of cash and stationery. This series of duties is common more or less to all superior offices, on whatever record-system conducted. The principal books kept in a Government Secretariat office are the following:—a register showing in-coming papers, a circulation-book showing their stages in passing through the office, a disposal-book showing their disposal previous to being put in record, an index for future guidance, an arrear-book. These are the main heads, but they vary with the record-system. Outside the Secretariat

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manuscript copy in French, forwarded to the Government through the Resident in Mysore. "f" Journal of the Burmah Field Force, 1852. By Major Allan. (13) *Political Intelligence.*—Under this head are comprised letters from Residents and others, conveying special information to the Madras Government, and of which the originals have been preserved in guard-books with particular care. They are few in number and the principal are :—"a" Intelligence respecting Mysore, 1792–99. Original letters from the Resident at Hyderabad and others respecting Tippoo. Many of them are in cypher. "b" French advance towards the Red Sea, 1801. Letters from the Bombay Government concerning the preparations which would be necessary to resist any such attempt. "c" Private letters from the Resident at Travancore, 1809-10. Original letters from Colonel Macaulay. (14) *Law, Justice and Police.*—Under this head are comprised records connected with the administration of the law, the constitution of Courts, the establishment of police, the regulation of markets, and other similar matter. The principal records are the following:—"a" Mode of Procedure in Civil Suits, 1726. A full account. "b" Reforms in the Mayor's Court, 1754–76. Suggestions on the subject forwarded to the Court of Directors at their request. "c" Proceedings of the Police Board, 1770-71. This record refers to an attempt made to reform the civil administration of Madras. A Committee was elected by the suffrages of the inhabitants of Madras to draw up regulations for the better supply of provisions, the lighting and paving of the town, the removal of public nuisances, the conduct of servants and rates of wages, the conduct of the Master Attendant as regards boatmen, and for establishing a court for settling caste disputes. The President and members of Council also resolved themselves into a Police Board to take into consideration the suggestions of the Committee. The Committee finally came into collision with the Board, and the scheme appears to have fallen to the ground. "d" Draft of a Charter of Justice for Fort St. George, 1793. A plan suggested by Lord Hobart for abolishing the Mayor's Court and establishing a Court of Judicature. "e" Police administration in Malabar, 1793; consists of regulations for that purpose. "f" Proceedings of the Police Committee, 1797-98, appointed to establish a public market and to lay down a scale of prices. "g" Price Current and Rates of Hire, 1798. All the Native tradesmen, palanquin bearers, and coolie maistries, signed an agreement to charge a certain fixed rate for their goods or labour. This record contains full details respecting the prices. "h" Police Committee Book, 1805–14. This Committee appointed to investigate the state of the Police establishments in the Presidency. "i" Police Regulations for the town of Madras, 1811. A collection of these. (15) *Records respecting Establishments.*—Under this head are comprised some miscellaneous records referring to the Company's establishments in this Presidency. They are not of much value, but they occupy little space. The principal are the following:—"a" Company's furniture at Fort St. George, 1779. Merely a descriptive list, the value of the whole being estimated at 15,368 pagodas, 23 fanams, and 20 cash. "b" European and Native servants of the Madras Government, 1787. A list, with pay and the nature of office. "c" Bombproofs and godowns belonging to Fort St. George, 1790. "d" Allowances and emoluments of the offices under the Madras Government, 1794. An account of the established allowances drawn by all persons under the Government whether covenanted or not; also the expenses of the different offices. "e" Pay and allowances of the Madras Army, 1803. "f" Civil Servants in the Madras Presidency, 1810-14, a register with all particulars. "g" Abolition of pensions to widows of Native servants, 1824–51. This fund was established in 1807 and abolished in 1824. This record contains statements of the pensions which continued to be paid subsequent to the abolition. (16) *Cowle Books, Registers of Grants, Land Customs, &c.*—The records which come under this head refer to cowles, jagheers, revenues, customs, quit-rent, compensation for lands resumed, and other similar matters. Further documents connected with the same subject are included under the head of "Committees on Finance." The principal are the following:—"a" Cowle Books, 1725–1823. Copies of all the cowles granted by the Madras Government. "b" Revenues of Fort St. George, 1771, together with an abstract of charges in the Civil and Military establishments. "c" Land customs at Tiroopapooliyore, 1771–72; the accounts of the land customs at this place, near Cuddalore. "d" Register of Grants of Ground, 1774–1811, with full particulars. "e" Jagheer Cowle Books, 1784–93. "f" Quit-rent, 1791–1802. Accounts and correspondence concerning the payment of quit-rent to Government for various lands. "g" Mr. Falconer's Jagheer Report, 1802, on the jagheer held under the late Mahomedan Government in the Carnatic, prepared as far as possible from the original sunnuds. "h" Tariffs in the French and Danish districts, 1817, showing the wholesale prices of different articles on which certain customs were to be levied. (17) *Returns.*—Under this head are comprised miscellaneous returns such as:—"a" Marriages, Baptisms, Burials and Funerals, 1743–1859. Amongst the early entries is the marriage of Captain Robert Clive to Margaritha Maskelyne, on February 18, 1753. "b" Arrivals and Departures of Ships, 1800–1836. Lists with various particulars, such as dates, names, tonnage, &c. "c" Police Battalion at Ganjam, 1804–15. Monthly returns with particulars. "d" Vaccination Returns, 1805–15, by the Superintendent of Vaccination. "e" Embarkation and Disembarkation Returns, 1848–53; the original letters of the Quartermaster-General. (18) *Memorials and Petitions.*—Under this head are comprised:—"a" Memorials of Europeans to the Directors, 1789–1852, including memorials (*a*) from Civilians and other European residents, (*b*) from Military officers, (*c*) from gentlemen in the Revenue Department. "b" Petitions from Natives, 1805–12, of a miscellaneous nature. "c" Petitions to the Madras Government, 1809–11; the most interesting are respecting the disputes between the right and left hand castes in 1810. "d" Letters from Pondicherry, 1808–10; from different individuals during the British occupation. "e" Petitions from the Nawab's dependents, 1815–20; the originals in Persian with English translations. "f" Memorial of Surgeon Horsman, 1821, connected with a charge brought against him as Medical Storekeeper. (19) *Covenants and Oaths.*—Under this head are included all covenants entered into by Civil Servants and other residents in India with the East India Company. They are mainly antiquarian curiosities. The principal series are as follows:—"a" Letters from independent Europeans in Madras, 1787. In this year the Government ordered every European in Madras, not in the King's or Company's service, to state by letter the circumstances under which he came to India, &c. This volume contains copies of all these letters. "b" Oaths of commercial residents, 1799–1832. These are the formal oaths or affidavits which all commercial residents were required to take, that they would not accept any present from any person employed in making up the investments of the Company. "c" Security bonds, 1794, for the due performance of covenants with the Company. "d" Applications respecting new covenants, 1795. Letters from various persons not in the Company's service respecting the covenants they must sign. "e" Covenants with Civil Servants, Chaplains, Assistant Surgeons, &c., 1793–1831. "f" Oath Books, 1803–1852, containing the oaths of all Judges and Magistrates in the Judicial department to fulfil their several duties. (20) *General Standing Orders.*—Under this head are comprised the Standing Orders and Regulations issued by the local Government and the Commander-in-Chief, as well as the Orders sent out by the Court of Directors. (21) *Gazettes and Newspapers.*—These explain themselves.

and the Revenue Board there is no separate circulation-book. The index takes many different forms under different record-systems. The office books which check the arrears in corresponding offices or in the office itself are important; but they are so various in form that they cannot be generally described. The organization of the staff of each office must depend on its circumstances, and varies also from time to time. The article on establishments furnishes some details. In 1882 the Government issued consolidated instructions regarding the contents of correspondence sent to their own address; the principal provisions are shown in the foot-note.[5] The use of the printing press is an important consideration in the conduct of Government business. The Secretariat print as a rule the following papers:—'disposals' or other papers which will frequently be required for reference and of which it is inconvenient to have only one manuscript copy, papers to be communicated to four persons or more, papers involving an unusual amount of copying, important disposals on subjects for which a printed stock-file is kept, disposals issued to another office printing with the Government Press where it appears that such office must on receipt print the paper. With regard to the last item, it must be mentioned that all the Secretariat offices and the Revenue Board print at the Government Press, but till lately were merely for the purposes of the press so many separate departments. When printed orders went from one department to another, the type of the former was broken up, and the latter began printing operations afresh. It was impossible to adjust the records so that the first paper should be always present in the same place as the second; there was therefore a want of consecution between the different parts of the printed system, and great loss of time and inconvenience ensued. This result was particularly noticeable between the Revenue Secretariat and the Revenue Board, who are in frequent correspondence by means of printed papers. In 1882 it was arranged that type should stand, and be transferred from one department to another, the Secretariat departments and the Revenue Board being put on one exchange for this purpose. The result is that documents printed consecutively or complete in themselves are more frequent than before in the proportion of about ten to one. It will be seen that this arrangement is in accordance with the main principles of the 'disposal-number' record system before mentioned. A point of routine procedure in connection with petitions which has been recently introduced deserves mention, as illustrating changes in the connection between official machinery and the public. Under native rule a petition was always endorsed and returned, little or no record being kept. Till a year ago petitions were returned even from the Government Secretariat, the only record kept being an abstract or book entry. With the increase of appeals however, and the greater attention paid to this system, it has been necessary to retain petitions. They are now in the Secretariat in all cases, and other offices in all except very trifling cases, treated like ordinary correspondence; and the writers must keep their own copies if they require them.

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[5] PRINCIPAL CORRESPONDENCE RULES ISSUED BY GOVERNMENT.—(1) *Treatment of enclosures.*—Communications addressed to the Government are as a rule to be complete in themselves and independent of enclosures. Enclosures of importance can be forwarded, but merely for possible reference on points of detail. An exception to the rule here given will be where the case is simple and contained in a few words, and where a brief covering letter or endorsement added to an enclosure lays the matter before Government with sufficient clearness. But this method is not permitted where it indicates want of attention to the matter in hand by the officer addressing Government. (2) In forwarding enclosures, it should be noted that they can often be forwarded in original, to be returned when no longer required. Also that they should never be forwarded in extenso when extracts will suffice. (3) When an officer in immediate correspondence with Government has to submit views based on those of various subordinate officers, a brief précis of the latter should, in the majority of cases, accompany the letter written to Government. Such précis can conveniently be in a tabular form. (4) *Previous preparation of correspondence.*—The Government ordinarily receive communications on different subjects from the officer only who is the head of the Executive department immediately concerned; as for instance, on a Revenue subject from the Board of Revenue only, on an Educational subject from the Director of Public Instruction only, &c. Such officers should, before submitting subjects, do their best to make them complete and independent of reference to other departments. Thus, where it is plain that the opinion of the Surgeon-General will be required by Government before disposing of a paper from the Board of Revenue, the latter office should consult the Surgeon-General prior to addressing Government. Inter-communication between the Executive departments is to be freely adopted before the Government is applied to. (5) *Contents of letters.*—Correspondence should be condensed as much as possible and repetition and details should be avoided. (6) Separate letters should be written on distinct subjects. (7) Care should be taken not to raise general questions or to apply for specific orders in periodical reports. (8) *Size of stationery.*—To enable papers to be arranged consecutively on the disposal number or other record system, a uniform size is prescribed, viz., 13 inches in length by 8½ inches in width. With the same object correspondents are desired to fold papers once only, vertically. (9) *Docketing.*—To facilitate work in the Secretariat all papers sent in are to be docketed outside with a brief abstract of their contents.

CHAPTER II.

ADMINISTRATION OF THE LAND.

SURVEY.

93. INTRODUCTION.—Indian surveying[1] is of three kinds, the trigonometrical for laying the large general bearings of the country, the topographical for producing maps or plans of which the typical size is one inch to the square mile, and the revenue which goes into much greater detail. The first is the most scientific, and the third is practically the most useful. Triangulation forms almost the sole operation in the first; in the third it is of an elementary kind, and is employed for the purpose of measuring lines that cannot be chained and for the connection of Revenue work with Trigonometrical stations in order that the Revenue Survey distances may be checked by Trigonometrical measurements. The Great Trigo-

[1] SKETCH HISTORY OF SURVEY OPERATIONS IN SOUTHERN INDIA.—(A) EARLY SURVEYS. The first surveys were the coast-surveys of mariners and the notes of land-travellers. To these it is not necessary here to refer. (2.) *Major Rennell.*—Major Rennell, Surveyor-General of Bengal, who was engaged in surveying operations between 1763 and 1782, was the first officer who is known to have shown results based on observations of latitude and longitude coupled with chain measurements on the ground. His measurements north and south have been found accurate, and east and west approximately so. But he employed no triangulation. He did not survey any part of the south of India. (3.) *Military route surveys.*—Colonel John Call, Major Rennell's successor as Surveyor-General of Bengal, made some route surveys in this Presidency about the year 1772. These were made in the usual military fashion, but the exact methods of measuring position and distance are not known. In 1773 the Madras Government themselves determined to make a military survey of the Northern Circars, and sent two parties for that purpose, one under Captain Stevens and the other under Captain Pitman, both Officers of Engineers. The method of the survey is not on record. In 1782 Colonel Pearce was sent from Calcutta to Madras for the purpose of fixing certain geographical positions, and laying down a map of the coast-line, between those two places. He observed for latitude by stars' meridian altitudes, and for longitude by immersion of Jupiter's satellites. He employed the hodometer or self-registering survey wheel, for measuring distances. Throughout the wars of the Carnatic, route surveys accompanied most of the operations in the field. In 1783 Colonel Kelly produced a valuable collection of route registers and maps, which he had made during a long course of service, and some of which had proved valuable guides to General Sir Eyre Coote. Captain Pringle also made maps, and measured 2,000 miles of road in the Carnatic, during the war with Hyder Ally. Lieutenant Colebrooke, who subsequently became Surveyor-General of India, completed in 1793 a map of that part of Mysore which was traversed by the army under Lord Cornwallis; and a survey was made in the same year from Seringapatam through Coorg to the West Coast by Major Kyd. In 1790 Captain Michael Topping of the East India Company's navy was engaged in surveys of the Godavery river between the sea and Bezwada, with a view to the construction of irrigation works. He was after this appointed Chief Surveyor at Madras. This officer took part in the first establishment in 1792 of the Astronomical Observatory at Madras. (4.) *Commencement of scientific operations.*—With the first year of the present century a new departure was made in the surveys of Southern India. Hitherto there had been nothing but route surveys coupled with a few observations for latitude and longitude, and military reconnoissances or reports followed by topographical sketches of localities and very rough general maps. But in 1800, owing to the interest which Lord William Bentinck, then Governor of Madras, and Major-General James Stuart, then Commander-in-Chief of Madras, took in surveying, not only from a military and administrative but also from a scientific point of view, it was resolved to carry out a survey of the Presidency on a scientific and methodical system. It was to be scientific, inasmuch as the topographical surveys and maps were hereafter to be based on the trigonometrical survey then about to be organized; and methodical inasmuch as one system was to be established and one set of symbols adopted in the mapping, instead of allowing each surveyor as heretofore to work and show details according to his fancy. Though topographical map-making was instituted some years before the trigonometrical survey, the history of the latter will be considered first; as being the scientific basis of the topographical surveys, and indeed of all other surveys however named. (5.) (B) TRIGONOMETRICAL SURVEY.—*Initiation of the Trigonometrical Survey.*—It was accepted as a fact in the Madras Government resolutions of 1800 that their surveys must in future be based on a connected system of major triangulation, conducted on the most scientific principles. To throw a network of triangles over a large extent of country, and to verify the geodetic measurements taken in the process by correct astronomical observations, is a task requiring all the appliances of modern science. The oblate spheroidal curvature of the earth's surface, the effects at particular localities of temperature refraction and altitude above the sea, and many other circumstances not appreciable in the practice of ordinary surveying, have all to be considered. The ordnance survey on this method was begun in England in 1791. The corresponding Trigonometrical Survey of India was proposed and initiated by Major Lambton, an infantry officer serving in the Madras army in the war with Tippoo Sultan. (6.) *Description of a Trigonometrical Survey.*—In detail the trigonometrical survey consists of the following three distinct operations. First; the selection of sites for base lines to form the ends of certain ranges of triangles, their setting out, and their measurement with the utmost attainable accuracy. The base is measured in the Indian Trigonometrical Survey by chains and compensation-bars. Secondly; the construction of triangles. From the ends of the first base angles are taken to other selected points within view, and a series of connected triangles thus laid out. As these triangles are formed on the spheroidal surface of the earth, certain formulæ based on the rules of spherical trigonometry must be applied to reduce them to such terms as will enable them to be dealt with as plane triangles. New bases are taken from time to time in the direction of both latitude and longitude, compared with the original base, and used as fresh points of departure. Thirdly; the correction of the triangulation by astronomical observation. The various operations comprised under this need not be detailed, but it must be mentioned that the

nometrical Survey of India is an Imperial Department, with head-quarters at Calcutta. It includes a topographical and a revenue as well as a trigonometrical branch, and its operations extend to all parts of India for trigonometrical work,

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most important consists of that known as the measurement of an arc of the meridian, or of the distance north and south on the earth's surface of points in that surface answering to a certain angle in the heavens. From a comparison of a number of such observations, a true idea is formed of the irregular curved shape of the earth; and the process is necessary for the ultimate correction of the triangulation itself. (7.) *First fifteen years of the Trigonometrical Survey.*—Major Lambton's plans were laid before the Madras Government and approved. In 1800 he measured his first base line, afterwards rejected, near Bangalore. The trigonometrical survey may be said to have actually begun on the 10th April 1802, when he measured a base, subsequently retained, near Madras. The ground then selected was a flat plain nearly eight miles long, with St. Thomas' Mount near its northern, and Perambaukum hill near its southern end. The base line was chain-measured. It was $7\frac{1}{2}$ miles long. The measurement was completed on the 22nd of May, when observations were taken to determine the angle of the base with the true north and south meridian. From the Madras base line a series of triangles was carried up to the Mysore plateau; and a second base was measured near Bangalore in 1804, by Major Lambton's assistant, Lieutenant Warren, as a datum for extending the triangles to the Malabar Coast; and as a base of verification for the triangles brought from the Madras base. Lieutenant Kater was next despatched to select stations in the mountains of Coorg and Bednore, whence the flag-staves on the western sea-coast would be observed and utilized. A series of triangles, in two degrees of latitude, was then carried across the peninsula; the flag-staves at Tellicherry, Cannanore, and on Mount Delly, being observed from the summit of Todiandamole, the highest peak in Coorg. But no base line was measured on the Malabar Coast. The distance across the peninsula, at this point, was found to be 360 miles; while the best maps had hitherto given it as 400 miles. Thus the necessity for a trigonometrical survey, and the inaccuracy of other methods, was demonstrated. This part of the work was completed in 1806. Having connected the two sides of the peninsula, Major Lambton devoted much of his further labours to measuring an arc of the meridian, and the series of triangles that was measured for this purpose is known as the "Great Arc Series." He first brought the great arc series down from the Bangalore base line towards Cape Comorin; and a new base line was measured in Coimbatore in 1806. In 1808 a base line was measured at Tanjore. In this part of the country Major Lambton availed himself of the gopoorams or lofty towers of the pagodas, on which scaffoldings were erected. Thus triangles were formed, connecting Tanjore with Nagore and Negapatam. A base line at Tinnevelly was measured in 1809, and the primary triangles were extended thence to the sea-shore at Punnay, eight miles north-east of Cape Comorin. This terminal station is a mile south-east of the village of Punnay, and about 700 yards from the beach. Major Lambton devoted 28 days to fixing the latitude of the Punnay station, during which time he took 236 astronomical observations. Another series of triangulations was carried across the peninsula from Negapatam to Ponnany and Calicut, and another round the coast from Rameswaram, through Travancore and Cochin, to Calicut. The great arc series was completed from Cape Comorin to Bangalore in 1811, and Major Lambton and his staff then turned their whole attention to its extension northwards in the direction of the Himalayas. Major Lambton himself calculated on personally completing it as far as Agra. A base was measured at Gooty, with triangles connecting it with that near Bangalore and others extending to the river Toongabudra. The Gooty base is also the foundation of a series of triangles connecting Masulipatam with Goa; and bases of verification were measured near Goontoor on the beach at Coomee and at Cabo de Rama, Cape Ramas. By 1815 an accurate basis of triangulation had been formed from Cape Comorin to the Kistna river, sufficient for the purposes of the topographical surveyors throughout the Presidency. Heights of peaks and plateaux had been at the same time measured and recorded. (8.) *Trigonometrical Survey made Imperial.*—In 1818 the trigonometrical survey, hitherto a Provincial undertaking under the Madras Government, was made Imperial with its head-quarters at Calcutta. The survey was called the Great Trigonometrical Survey of India, and Colonel Lambton was called Superintendent. A Surveyor-General of India had been appointed in 1815. The Trigonometrical Survey was not made subordinate to this officer. Captain Everest was sent to Colonel Lambton as chief assistant, and Dr. Voysey was appointed geologist and medical attendant to all the trigonometrical surveying parties. In 1824 Colonel Lambton died, aged 70, at Hinganghaut near Nagpore. He had then completed the triangulation of 165,342 square miles in the peninsula, mostly in this Presidency. Dr. Voysey died in the same year. (9.) *Everest's Gridiron System.*—Captain Everest succeeded Colonel Lambton. The system of the latter had been to cover the whole country with triangles. The former considered it was sufficient to execute meridional series about a degree apart, united at their two ends by longitudinal series. This method, which he carried out, has been called the gridiron system. It is similar to the French and Russian methods, and has been continued as the method of the Indian Trigonometrical Survey to the present day. Another change made by Captain Everest was the substitution of compensation-bars, or self-adjusting bars of brass and iron, for the old chain. The compensation-bars constitute still the method in use. He also discontinued field work in the monsoon months, hitherto practised on account of the clearness of the atmosphere at that season; and invented a system of observation by heliotrope flashes by day and argand lamps and blue-lights by night, which gave all the facilities that were needed at other times of the year. He invented also the "ray-tracing" system for discovering the spot where the ray of a distant object is likely to be met, which has been subsequently adopted for general use by the topographers in the trigonometrical survey. Everest was an inventive genius, as well as a skilful geodesist; and the whole conception of the trigonometrical survey, as it now exists, may be said to have been the creation of his brain. Colonel Lambton's network covered only a portion of Southern India, and it is impossible to say how long the process would have taken if applied to the whole of India. But Everest grasped the larger bearings of the question by his invention of the cross open series, and in his own lifetime went far towards seeing the whole of India included in the operations. On the other hand as to detail it must be admitted that the operations of this time have little in common with subsequent operations. They were executed at a time when the science of geodesy was in its infancy, when the several instruments which are necessary for the linear and the angular measurements of a survey were still far from their present state of perfection, and when the methods of reduction and analysis were rude and imperfect. The geodetic measurements of this period, together with similar operations performed at the same time in Europe, have been superseded by operations carried out with modern instruments of greater accuracy. Nevertheless they have furnished data for an approximate determination of the figure of the earth, and are still valuable for geographical purposes inasmuch as they furnish points on which topographical and revenue surveys are based. In 1830 Everest became Surveyor-General of India, combining that office with the superintendence of the Trigonometrical Survey. (10.) *Colonel Waugh.*—Everest was succeeded by Waugh in 1843. Everest in recommending that he should succeed him writes, "his talents, acquirements and habits as a scholar, a mathematician and a soldier are of a high order." From observations extending over many years, Waugh came to the conclusion that Colby's compensation-bars were unsatisfactory, as the relative length of the bars changed according to some law independent of temperature. He proposed therefore to do away with the compensation system, and to substitute simple iron bars 10 feet long, coupled by a pair of microscopes revolving round an axis regulated by a level. But as Colby's compensation-bars have been used for the measurements of all the bases in India, no action seems to have been taken on Waugh's suggestion. Colonel Waugh, during his tenure of office, determined the height of several base lines in the interior above sea-level by a series of levelling operations. The heights of such bases above sea-level had hitherto been obtained by taking vertical angles, and although very accurate results were obtained by this method, Colonel Waugh was of opinion that in the largest series of triangles in the world it would be satisfactory to have the results of the angular observations checked by actual levelling. As a result of one set of these operations, it may be mentioned that the distance from the sea to the Cutch base line is 706 miles, and the difference between the results by this and the former methods of working was only 3 feet 2 inches. (11.) *Colonel Thuillier and Colonel Walker.*—Sir Andrew Waugh retired in 1861, and the offices of Surveyor-General and Superintendent of Great Trigonometrical Survey were then again separated. Colonel Thuillier became Surveyor-General of India and Colonel Walker Superintendent of the Great Trigonometrical Survey. Colonel Walker measured a base line at Vizagapatam, and connected it with the coast

and to all parts of India other than the Bombay and Madras Presidencies for topographical and revenue work. The Madras Survey embraces a topographical and a revenue or cadastral branch. It has no connection with the Imperial

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series, bringing triangulation back from Calcutta to Madras, the original starting-point. This was effected in 1864. Lambton's Bangalore base of 1804 was remeasured in 1867, Lieutenant Rogers connecting the base with the main triangulations. In 1869 the base at Cape Comorin was remeasured, this being the last necessary for the verification of the series for India proper. Other operations for verifying what was considered to be the most faulty portion of the original work have been since undertaken. In 1881 the main triangulation of India proper was regarded as complete. (12.) The results of this survey are recorded in the publication "Account of the operations of the Great Trigonometrical Survey of India." (13.) *Summary of results.*—Though the survey has long since ceased to belong in any sense to this Presidency, it is of interest to trace it in its final developments. Colonel Lambton carried out the triangulation along the east coast from Madras to Cape Comorin, and measured the great meridional arc from Punnay, 8 miles north-east of that Cape, in lat. 8° 9′ 38″·28 to Dowmergidda in lat. 18° 3′ 23″·53. Thence his successor, Colonel Everest, extended the arc to Calyaunpore in lat. 24° 7′ 6″·05, whereby the whole measured arc amounted to 15° 57′ 41″·027, as described in the Account of the Measurement of the Arc of the Meridian, published by that great surveyor in 1830. In the midst of all the wars and disturbances of the century the principal triangulation has been carried on successfully till it is connected with Russian territory in Central Asia, and includes the Crown colony of Ceylon. In 1878–80, during the British occupation of Afghanistaun, an area of 39,500 square miles there was surveyed by British officers and 7,000 square miles explored by native agency, linking on Caubool to India. The Sikaram peak of the Safed Koh range, one of the most strongly fixed of all the great trigonometrical trans-frontier peaks, is the point of connection between the two series. In March 1881, when two expeditionary columns were sent into Wazeeristaun on the eastern confines of Afghanistaun and close to the British districts of Bannoo and Dera Ismail Khan, an area of 1,200 square miles was surveyed in detail. Several mountains on the western frontier were ascended, including the celebrated peaks of Peerghal and Shindar (11,000 feet), which command a view of the region to the east almost up to the road from Quetta to Ghuzny. Besides the principal triangulation, the eastern frontier series deals with the region outside of India proper, in Burmah. That triangulation also has recently been brought to a close on a base line of verification in the Mergui township; it has been extended over Siam to the capital of Bangkok from the Amya pass on the Tavoy frontier, known to the Siamese as Kow Den "boundary hill." (14.) (C) Recent Astronomical Observations.—During the last 25 years various separate astronomical observations have been made in connection with the trigonometrical survey. In 1863 two parties were organized to fix latitudes throughout India. In 1868 a total eclipse of the sun gave opportunities for observations at Goontoor. Since 1872 telegraphic longitude observations have been taken in the Presidency, with the assistance of Mr. Pogson, the Government Astronomer. One of the objects is to measure arcs of parallel as opposed to arcs of meridian. The longitude of Madras itself has been on this method determined as 5 h., 20 m., 59·399 s.; or 80° 14′ 50·985″ East longitude. The longitude of Madras is, next to that of Greenwich, the longitude of the most importance in the operations of English science. The pendulum has also been used to estimate the elliptical shape of the earth between the equator and the poles. The pendulum experiments showed that the density of the earth's crust under the Carnatic, Deccan, and Central India was greater than under the Himalayas. (15.) (D) Topographical Survey.—In the same way as military route and trigonometrical surveys, so topographical surveys had their origin in this Presidency. They began, as above-mentioned, almost concurrently with the larger trigonometrical survey; on the triangulation of which they were in fact in theory based, and by which they must be ultimately tested. Topographical surveys result in the maps of ordinary use, the more usual form being that on the scale of an inch to the mile. The stations of the trigonometrical survey give four elements required for a topographical survey; a point of departure with latitude and longitude, a base, an azimuth or true direction of the meridional line, and the height above the sea. The large triangles must however be broken up by a secondary triangulation. (16.) *Surveys to* 1810.—The earliest topographical maps were compiled by the officers of the Madras Quartermaster-General's Department from military route surveys and independent surveys. Colonel Colin Mackenzie was the first Indian officer who employed triangulation for topographical surveys. His first survey was in Coimbatore and Dindigul. From 1790 to 1794 he surveyed Nellore, Goontoor, and the Ceded Districts. In 1795 he organized the Military Institution at Tripassore in the Chingleput District for the scientific education of Military officers. That this institution contributed largely to develop the geographical knowledge of the country is apparent from the fact that the students turned out 1,600 square miles of detailed survey annually. Officers from the institution accompanied military expeditions in order to collect geographical materials for the Quartermaster-General. One of the best maps of former days of the country between the Indus and the Nile was compiled by some of the officers of the institution who went with Sir John Malcolm to the Persian Gulf. Some of the officers of the institution proceeded with the expedition against the islands of Bourbon and Mauritius. After the capture of the islands, these officers were engaged in making surveys of them. They acted similarly in Java in 1811, and in subsequent expeditions. The operations of the military institution continued till 1816. Its first principal was Captain Troyer. It supplied many officers for the Madras Topographical Survey. In 1799 Colonel Mackenzie himself was appointed to conduct the topographical survey of Mysore and the Deccan, leaving the Madras surveys in other hands. In 1810 the Madras Government created the appointment of Surveyor-General, and Colonel Mackenzie was appointed to it. He served in that capacity till 1815, when he became Surveyor-General of Bengal, remaining in this Presidency however till 1817. Colonel Mackenzie was an archæologist as well as a surveyor. His posthumous "Collections of Oriental Manuscripts" furnish the greater part of the present knowledge of South Indian literature and early history. (17.) *Surveys to* 1834.—In 1811 and 1812 Lieutenant Garling of the Military Institution surveyed Goa. In 1813 the survey of North Canara was begun under him and Lieutenant Connor. The same officers surveyed Travancore and Cochin between 1816 and 1821, and Malabar and Wynaud between 1825 and 1829. Tinnevelly was surveyed by Assistant Surveyor Turnbull and others between 1807 and 1813, and their reports furnished the first accurate knowledge of the population of the extreme south. Dindigul and Madura were surveyed between 1815 and 1824 by Assistant Surveyors Turnbull and Keyes and later by Lieutenant Ward. Coimbatore was surveyed by Ward and Keyes between 1821 and 1824; they named Lambton's peak after the founder of the trigonometrical survey. The Carnatic was surveyed by officers of the military institution, and Trichinopoly by Lieutenant Ward. Ellore, Rajahmundry, and Goontoor were surveyed between 1815 and 1823 by Lieutenant Mountford and officers of the institution. Nellore, Vizagapatam, Salem, Ganjam, and the Arcots were surveyed between 1833 and 1840, by Captains Snell and Macpherson. About this period many maps of the several portions of this Presidency were completed. Each topographical survey was accompanied by a memoir more or less valuable. In 1815 the Madras Government ceased to have a separate Surveyor-General, and the officers were placed under the Surveyor-General of India, a Deputy Surveyor-General being in charge at Madras. In 1858 the topographical survey of the Presidency was amalgamated with the revenue survey then first instituted under that name, and hereafter to be described. (18.) (E) General Maps and Atlases.—In 1752, or five years before the battle of Plassey, the French geographer D'Anville published in Paris his map of the whole of India, combining in it all the existing knowledge of the country. He took his information in part from rough charts of the coast, and in part from the records of routes performed by travellers. Southern India by virtue of its long sea-board received its full share of attention in this map. The English edition of this map was published in 1754. Major Rennell after retiring from the service produced a map of India in 1788, partly founded on D'Anville. The results of the land surveys by himself and others were however added. The next map of India was by Aaron Arrowsmith, a London cartographer, in 1816; $\frac{1}{12}$th of an inch to the mile. This was the last based on route surveys. When the topographical results of the military institution reached England, they were put in the hands of Arrowsmith, who thereupon published a map of Southern India up to the Kistna; 18 sheets, $\frac{1}{4}$th of an inch to the mile. The Indian atlas, for all India, was projected in Calcutta shortly afterwards, and on the decease of Arrowsmith was handed to Mr. John Walker for collection of materials and engraving of the copper-plate. The Madras surveys supplied the earliest sheets. In 1868 when Mr. Walker was at a very advanced age, the engraving of the sheets was transferred to Calcutta,

Department other than that of furnishing it with manuscript material for the Atlas of India.

94. LAW.—The only legal provisions specially connected with survey work in this Presidency are those contained in Act XXVIII of 1860; "an Act for the establishment and maintenance of boundary-marks, and for facilitating the settlement of boundary-disputes in the Presidency of Fort St. George." The Act deals with the whole subject 'ab initio,' giving power to determine the boundaries both of villages and fields and to settle disputes. Government bears the cost of all village and division station stones and of field stones in unoccupied Government lands, the owners bear it in other cases. A penalty of Rupees 50 for each mark may be inflicted on conviction before a Magistrate for erasure of or wilful damage, &c., to boundary marks; half of the penalty goes to the informer and half to the cost of restoration. If a mark disappears, and no delinquent can be found to whom the damage is attributable, the cost of restoration is divided between the occupants of the adjacent lands according to the order of the Magistrate investigating the case. A Bill however has lately been drafted to provide for the better maintenance of boundaries after the completion of a survey, and for the recovery of the cost of restoration of demarcation stones from the ryots concerned. Under Section 1 of this Bill, the owner or occupier is made responsible for the maintenance of the boundary marks of his estate, and under the remaining sections the procedure is laid down under which the Collector will be enabled to enforce the maintenance of the demarcation generally, and recover if necessary the expenses incurred in the repair of boundary marks from the owners or occupiers of land in villages demarcated at the time of survey. An appeal is given under the concluding section of the Bill to the Board of Revenue, against any decision of the Collector under the Bill. The Bill has been generally modelled on the provisions of the Bombay Land Revenue Code. The details of the law are shown under the title Survey in Vol. II, App. LIV.

95. ESTABLISHMENT.—The survey is under the control of a superintendent, with an officer to assist him at head-quarters. There are now 5 parties at work

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a staff of English workmen being sent out. The scale of the Indian atlas is ¼th of an inch to the mile. The scheme embraces 177 sheets of square or oblong form. It is still in progress. Colonel Scott's map of the Madras Presidency, engraved by Walker, deserves notice; it is in two sheets. The new Madras Survey, next to be mentioned, supplies at the present date a large number of maps to departments and the public, as stated in the text, and as shown in detail at Vol. II, App. LXVIII. The maps based on the surveys are in demand in all the Departments of Government. (19.) (F) NEW MADRAS SURVEY.—The initial object of what are called the revenue surveys was to secure the delimitation of villages or estates. In their widest sense they are a native institution. The rough plan of village and fields, and the accompanying list of fields with their measurement, have been in use in all Indian administrations. The first revenue survey made by the English specially for their own revenue settlement was in the North-West Provinces in 1823. The English revenue surveys of Bengal began in 1838. In Madras no regular revenue survey, apart from the ordinary native methods, was instituted till 1853. Till that time the curnam's statements were the chief source of information, and independent measurements if made at all were few and hastily performed. In 1853 an experimental scientific survey of villages in the South Arcot district was instituted. During the two succeeding years the subject of a similar general survey for the whole Presidency was fully discussed. The Board of Revenue objected at first to the survey being conducted in connection with the triangulation of the Trigonometrical Survey. They were of opinion that field maps only were required for purposes of settling demand; and that geodesical operations would cause extra expense and delay, which they deprecated. In 1857 the contrary view was laid before Government, that in the interests of science no general survey ought to be commenced without precautions being taken for its harmonizing with geographical and geodesical operations. This was finally conceded, and in 1858 Captain Priestley of the 74th Highlanders, was appointed first Superintendent of the Madras Survey Department, combining the features of both a topographical and a revenue survey and dependent for its ultimate facts on the Great Trigonometrical Survey of India. Topographical Survey, on a small scale, was to be continued in lands other than ryotwarry, hill-ranges, large waste tracts, &c. The revenue survey on a much larger scale was to be applied wherever the topographical survey was considered insufficient. The area to be surveyed was computed at 60,000 square miles (or 38 million acres) for each method. The more accurate computation would have been 79,411 square miles for topographical work, and 61,617 square miles for revenue work. (20.) *Operations from institution to date.*—Captain Priestley commenced work with an establishment consisting of 18 surveyors and deputy surveyors, 30 survey ameens, 30 gumastahs, 20 draftsmen and computers, 77 peons and measurers, and 19 station-markers, at an annual cost of Rupees 31,338. Mr. Newill was appointed superintendent of the new revenue assessment, and the two officers worked in concert. In 1857 two talooks, one in South Arcot and the other in Trichinopoly, were surveyed. In 1858 the survey was commenced in the Rajahmundry district; in 1859 Masulipatam was taken up; and in 1860 there were parties in Nellore, Trichinopoly, and Salem. In 1859 a survey was undertaken of the important coffee-growing district of Wynaud. The main object of the Wynaud survey was to define the boundaries of the coffee-estates, and this was begun in the Nelloornaud amshom near Manantoddy, the principal station. The district had been surveyed topographically as a part of Malabar in 1826 by Lieutenants Garland and Connor, who fixed 16 stations from those of Lambton's triangulation; but the sites of villages were not accurately laid down in this survey. The Wynaud work was commenced in 1860, with a system of secondary triangulation from the original points, and the detail being filled in by the plane table. A lithographic press, with a suitable staff, was at this time established at Madras, for the publication of the talook and village maps. In 1851 and 1852 the Neilgherry and Coondah hills were surveyed. In April 1884 the revenue survey of four districts (Tinnevelly, Kistna, Godavery, and Ganjam) and the revenue and topographical survey of 10 districts (Trichinopoly, Salem, Chingleput, Nellore, Kurnool, Coimbatore, Neilgherries, North Arcot, Cuddapah, and Madras) had been completed. The topographical survey of 2 districts (Godavery and Kistna) and the revenue and topographical survey of 6 districts (Madura, South Arcot, Bellary, Anantapore, Tanjore, and Vizagapatam) and of the Wynaud talook, Malabar district, was in progress.

in different parts of the Presidency. Each party is under a deputy superintendent, and has also when up to strength a first, and second assistant superintendent attached to it. The subordinate grades are sub-assistant, head surveyor, deputy surveyor, and field surveyor, for field work; and manager, computer, draftsman, clerk, accountant, store-keeper, and record-keeper for office. The average strength of a party is as follows:—1 deputy superintendent, 2 assistant superintendents, 3 sub-assistants, 7 head surveyors, 138 deputy and field surveyors, 25 clerks and accountants, 37 computers, 54 draftsmen, 200 servants. The numbers however frequently vary.

96. METHOD OF WORK.—The topographical survey is applied to minor detached zemindarries and agraharams or Brahmin villages on the scale of 4 inches to the mile; to large zemindarries and excluded tracts on the scale of either 2 inches or 1 inch to the mile, principally the latter; and to exceptionally wild and unhealthy country on the scale of ½ an inch to the mile. The triangulation consists of a subdivision of Colonel Lambton's network triangulation or the other triangulations of the Great Trigonometrical Survey where these are found. Where they are not found, as for instance in the Kistna and Godavery districts, a new series of triangulation is originated. From the commencement of operations to 1884, the Madras Survey was connected with 495 Great Trigonometrical Survey stations. The triangles are as nearly equilateral as possible and no angle under 30° or over 90° is admitted in any triangle. The tops of hills are, as a rule, chosen for stations. Station stones are marked with the letter and number of the series, and covered by a cairn with a pole and brush placed in the centre. Vertical angles are observed for the computation of heights of the stations. The minor triangulation of a tract of country having been carried out and the computations completed, all the points are carefully projected on sheets called plane-table sheets in the central office, and any traverse work or surveys by theodolite and chain that may have been executed in the tract is plotted in them. The sheets are then mounted on plane-table heads or boards and sent out to the field where topographical details, such as hills, rivers, village-sites, limits of cultivation, roads, paths, tanks, &c., are delineated on them, and the names of villages, hills and rivers entered in the margin of the sheets. The work is checked by a system called "purtalling," which consists of drawing a line from one point to another on the plane-table, measuring the corresponding distance on the ground, carefully noting where streams, roads, ravines, &c., cross the line, and comparing the measurements on the ground with those on the table. But, owing to the nature of the ground on many of the hill ranges, a purtaul cannot always be carried out; in such cases the plane-table is set up at various points, and the accuracy of the delineation of the features of the country checked by moving to different stations and taking what are called cross rays. On the completion of this process the sheets are inked up and sent to the central office. Vol. II, App. LXIX gives a list of talooks for which the Survey have prepared alphabetically arranged lists of villages, containing certain topographical information.

97. The Revenue Survey proper is designed to show all the principal features on the surface of the soil, such as hills, jungles, woods, channels, tanks, wells, topes, houses, &c., together with the cultivated and cultivable land, whether irrigated or unirrigated, and the area of each field. It is confined, with few exceptions, to villages in which land-tax is paid to Government on the ryotwarry system. On taking up a talook for revenue survey, a notification is published in the District Gazette that the demarcation of the boundaries and adjustment of disputed claims will be undertaken under the provisions of Madras Boundary Act XXVIII of 1860. Two or more deputy surveyors are then sent into the talook to prepare eye-sketches of the villages, and to report on the quality and quantity of material available for demarcation purposes, and also to furnish information as to the extent of irrigated and unirrigated land in each village, &c. Arrangements are then made to procure the boundary, division and field stones required for each village, and as soon as stones have been made ready for a sufficient number of villages, demarcation is commenced. The boundaries of villages and the portions into which they are divided, called divisions, are first demarcated. The villages are grouped into convenient blocks of polygon shape, called main circuits, of from 100 to 150 square

miles in extent. The main circuit having been surveyed with theodolite and chain, the survey of the village boundaries and divisions is executed. The main circuit starts from a great trigonometrical station and is connected with as many great trigonometrical stations as may be necessary. Observations of the sun for azimuth are taken once in every 40 or 50 stations. The traverse is then set up, that is to say the angles and distances measured in the field are copied in traverse sheets and the latitudes and departures are computed, in the office; and this traverse is harmonised with the great trigonometrical work with reference to the co-ordinates computed from the great trigonometrical stations selected as the station of origin for that revenue district. To facilitate the setting up and closing of the village traverses, the main circuit is cut up into divisions or smaller circuits. The demarcation of boundaries and divisions of villages is followed by the demarcation of fields. The boundaries of fields are pointed out by the curnum and proprietors, and are demarcated in accordance with puttah accounts and revenue records. The field boundaries are permanently marked with stone, and every field is registered. The size of fields differs from that in Bombay. In the Bombay ryotwarry there is a minimum size for a field, but here there is no minimum. There are, however, maxima for the two main classes of wet and dry cultivation, 2 acres and 4 acres respectively, and for very poor dry cultivation 12 acres. The field or survey number is adopted for convenience of survey only, as inside the survey field there may be several revenue fields, the boundaries of which are subsequently determined by the Settlement Department. While the boundary work is being set up by traverse and plotted, the fields are measured by chain. All lines forming the boundary of the field are measured. Measurements are also taken so as to divide the field into triangles as nearly symmetrical as the shape of the field will allow. These measurements always start and close on demarcation marks. Village-sites, gardens, &c., which cannot be measured in the above manner are marked as minor circuits and surveyed with theodolite and chain. On completion of the field survey, the field books are sent into office and the fields plotted in sheets. The plotting is tested, and any errors that may be found to exist corrected by re-measurement in the field, if necessary. The field boundaries having then been inked, the area of each field is taken by computing scale, and the sum of the areas so obtained is compared with the traverse area. The difference rarely exceeds 1 per cent. The village map is then sent out for insertion of topographical details. This process being completed, the maps are finally examined in field and office and are sent to the central office, where they are published on the scale of 8 inches to the mile. The measuring work of the revenue survey is followed by the equally important operation of classing the fields with reference to productiveness of their soils. But this is the work of the Revenue Settlement Department next to be described. A series of documents has been deposited with the Geographical Department of the India Office, to illustrate the different stages of the Madras Revenue Survey work. For this purpose one village is taken, that of Vellapaukam, in the Pónnairy talook of the Chingleput district; and the whole of its survey and demarcation records are given in regular order, from the original field books to the lithographed copy of the village map. There are added a specimen of a talook map, a specimen of a topographical map, the demarcation and survey rules, and other documents.[2]

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[2] REVENUE SURVEY DOCUMENTS EXHIBITED AT INDIA OFFICE.

Village Map Records.

Land Register.
Boundary and Khandam Circuit Field Book.
Minor Circuit Field Book.
Ameen's Sketches.
Ameen's Field Book.
Boundary Traverse.
Khandam Traverses.
Minor Circuit Traverses.
Computation Papers.
Area Lists.
Manuscript map showing process of plotting fields.
Talook maps.
Maps of Madras Town.
Specimen Plane-table Square.
Topographical maps.
Demarcation Rules.
Survey Rules.

Miscellaneous.

Extract from Main and Village Traverses for distances between Great Trigonometrical Stations.
Comparative Statement of Distances between Great Trigonometrical and Revenue Surveys.
Average cost of survey measurements per square mile.
Index Map of the Madras Revenue Survey, showing the areas completed, the areas in progress, the intermediate spaces topographically surveyed, and those not yet taken up.

98. The maps first made in the two surveys are the plane-table sheets and village maps. These are made in manuscript in the districts, and are lithographed in the central office. From them the lithographed survey, talook and district maps and the manuscript atlas sheets are compiled in the following manner. The plane-table sheets and village maps are reduced by pentagraph or moveable scale to the required scale into sheets of $\frac{1}{4}^{\circ} \times \frac{1}{2}^{\circ}$ latitude and longitude on the scale of one inch to the mile. These sheets when finished are called 1″ topographical sheets. From them the district sheets of $\frac{1}{2}^{\circ} \times 1^{\circ}$ on the scale of $1'' = 2$ miles are prepared, and from the district sheets the quarter sheets for the Atlas of India on the scale of $1'' = 4$ miles are compiled. Village, talook and district sheets are lithographed or zincographed in the central office of the Madras Survey, and the manuscript atlas sheets are engraved in the Surveyor-General's Office, Calcutta. On the 31st March 1884, 17 quarter sheets of Atlas sheet mapping, comprising an area of 46,800 square miles, had been completed and sent to the Surveyor-General. Out of the seventeen sheets four have been engraved and published. In Vol. II, App. LXVIII, is given a complete list of the maps printed and published by the Madras Survey, and of the Atlas sheets prepared in manuscript by them, to the present date. Photozincography was introduced in the Madras Survey in 1873, and is most valuable for reproduction or reduction on account of the rapidity and exactness of the process.

99. Progress to Date.—The Presidency contains approximately 141,028 square miles, and up to the close of the official year 1883-84 the progress shown in the statement at foot had been made.[3] In all 48,316 square miles of topographical, and 52,315 square miles of revenue, survey had been completed. The average size of a field is about 2 acres. The average error in the village maps, shown by the test of comparing the work with that of the Great Trigonometrical survey is 7·61 feet per mile.

REVENUE SETTLEMENT.

100. Introduction.—In former days an Indian "Settlement" was a matter of some political importance. The deliberations of Government itself being of an uncertain nature with regard to various abstract matters, such as the question with whom they would settle, the principles on which they would calculate the demand, and other points, a considerable share in the discussion of these fell to the settlement officer. Hence the large number of political reputations obtained in former times from settlement work. And hence also, it may be added, the voluminous nature of the old reports on settlement. The English Government being the first Western holders of territory on a large scale in India had singular difficulty in understanding the land tenures, and if sufficient caution was observed to avoid important error, yet quite a special literature was created in the attempts to solve the different problems. The history of the Revenue Settlement Department in Southern India is briefly sketched in the foot-note,[1] and a record of its operations by districts will

[3] Survey work done up to 31st March 1884.

		Sq. Miles.
Villages surveyed on 16-inch scale		52,315
Zemindarry and hilly tracts surveyed on 4, 2, and 1-inch scale	34,005	48,316
Topographically surveyed by a party from Bengal	14,311	
Total surveyed ...		100,631

		Sq. Miles.
Remaining to be surveyed	Revenue ...	17,117
	Topographical ...	23,280

Maps.

	No.
Village maps published	21,315
Talook maps published	121
District maps published	7

[1] Sketch History of the Madras Revenue Settlement Department.—*Former Ryotwarry Settlements in Madras.*—The nature of the different ryotwarry settlements made by the British Government in this Presidency will be found briefly sketched in the foot-note to the article on Land Revenue Tenures; but under the present heading the same account may with advantage be given in greater detail. (2) At the time that the several districts of the Presidency were acquired by the British, the revenue system of the native governments was in nearly all cases that of simply farming out the revenue in blocks to the highest bidder, the result being to leave the individual ryot with at most not more than the means of subsistence and of replacing his stock. The first settlements of the British Government necessarily partook of the nature of those that preceded them, and settlement with an individual cultivator was not then heard of. Even where the farming system of the native governments was discontinued, the settlements were based on revenues collected under that system; the assessment of a district thus determined was distributed over its

be found in Vol. II, App. LXII. The paragraphs of this article contain an attempt to show in abstract its general principles and method of work.

101. Land revenue settlements of the present day are divided almost exclusively into two well-defined classes, ryotwarry and zemindarry. Nearly all Bombay, most of Madras, and the greater part of Assam are under a ryotwarry settlement, while in Upper India, meaning by that term the North-Western Provinces, Oudh, the Central Provinces, and the Punjaub, the form of settlement is zemindarry. The Madras Revenue Settlement Department is concerned with the ryotwarry tenure only. A ryotwarry settlement means the division of all arable land whether cultivated or waste into blocks or lots, the assessment of each block at a fixed rate

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several villages, and the ryots were left to apportion the demand among themselves. Individual settlements were first introduced by Colonel Read, to whom was entrusted the settlement of Salem on its cession in 1792. This celebrated settlement, which took five years to complete, was the foundation of the ryotwarry system of Madras. It embraced a survey of every holding in the district and a field assessment based on the productive powers of the soil. These particulars were determined by the entries recorded in the village accounts, by information derived from the ryots, and by the personal observation of the surveyors of the crops and stubbles on the ground. It had been down to that time popularly supposed that the Government share of the produce was three-fifths of the gross in wet land and half in dry. Colonel Read's enquiries showed that after allowing one-eighth in wet land and one-sixth in dry for vicissitudes of season, the proportions actually paid under the Mahomedan government did not amount to more than two-fifths of the gross in wet and one-third in dry. These proportions were adopted as the financial basis of the settlement. The ryot was not regarded by the Government of the time as the proprietor of the soil; he was merely a cultivating tenant, from whom was to be exacted for Government all that he could afford. Individual assessments were subject to modification, not only on such considerations as vicinity to roads, markets or villages, but on account of such changing conditions as the personal health and strength of the ryot, his caste, the amount of his stock, and his general reputation for wealth or poverty. While the settlement was made with each ryot individually for the lands held by him, an element of the village settlement system was introduced by making the ryots jointly responsible for the total demand on their villages. Settlements of the kind instituted in Salem were afterwards introduced into the Ceded Districts and elsewhere in the Presidency. All had these features in common, that they were invariably accompanied by some kind of survey, and that some attempt was made to determine the assessment by reference to the productive powers of the soil. The assessments in these early attempts at ryotwarry were too high to give stability to the system, and they all failed soon after their introduction. (3) The period of transition, during which the zemindarry and lease systems were tried, has been described in the article on Land Revenue and is not in point here. During this period there were also already in force, or then first essayed, various special forms of assessment, such as the "joint village," "asarah," "veesabuddy," "putkut," "muctah," and "ooloongoo" systems, as described in the article on Land Revenue. These tenures have all more or less since subsisted, the zemindarry system in fact now occupying a-fifth of the Presidency. Settlement officers do not touch the zemindarry system. When they meet with the special forms of tenure or assessment above mentioned they convert them into a purely ryotwarry tenure varieties of which they in fact all are. In 1820, as already said, Colonel Munro's views prevailed, and ryotwarry was re-introduced and constituted the standard form of settlement for the Presidency. The features of the original ryotwarry had been by that time in most cases almost obliterated, even where it had been most definitely instituted in the first instance. In re-introducing ryotwarry the original mistake of making the assessments too high was avoided; and rates were reduced 20 or 30 per cent. or more, as compared with the former rates. (4) *Institution of the Settlement Department.*—In 1855, that is to say a quarter of a century after the final adoption of ryotwarry as the standard revenue system of Madras, less than a-fifth of the area of the Presidency was cultivated, while more than half of the area recorded as arable was waste. Though population had largely increased and there had been uninterrupted peace, there had in all these years been no material increase of revenue nor extension of cultivation. The incidence of assessment was everywhere very unequal, while a succession of years of low prices had had the practical effect of raising rates, which it was admitted were already too high. It was calculated that on the average Government at that time took as its share 50 per cent. of the gross in wet and 35 per cent. in dry; while to give the ryot any real proprietary interest in the land and to induce an extension of cultivation, from 25 to 30 per cent. of the gross was, it was thought, the utmost the Government should claim. The Presidency of Madras was also the only province of India in which no regular survey had been instituted. The early surveys, even the best of them, were defective. There were no maps, district, talook, or village, and no permanent boundaries; and the records of the surveys, such as they were, had been but imperfectly preserved. These early surveys moreover extended to only a few districts of the Presidency, and there were districts in which the only records of the area liable to assessment were the unchecked entries in the curnum's accounts. On these and such like considerations Government determined in 1855 that a general revision should be made of the assessments of the Presidency, founded on what seemed the only right basis of a land revenue settlement, an accurate survey and a more or less exact classification of soils. The Government of India and the Home Government concurred in the necessity of the measure, and the Revenue Settlement Department was constituted in 1858 with Mr. Newill for the first Director. (5) *Scheme of Work.*—A scheme was originally sketched out as shown in the following fourteen heads:—"a." A revenue survey, showing all the principal variations in the surface of the soil, as hills, jungle, roads, channels, tanks, topes, houses, cultivated and culturable lands—and also exhibiting accurately the sizes of fields in these last two classes of land. "b." The minimum size of fields was to be one acre of wet and two acres of dry land. "c." Permanent boundary marks were to be established, and field, village and talook maps prepared. "d." Assessment was to be ryotwar, as "decidedly in advance of settlements by villages or other communities." "e." The terms of the annual settlement made with each ryot were to vary simply with the area or quality of the lands held by the ryot, and his use or non-use of water from a Government source. "f." Soils were to be divided into a few classes, based on real tangible differences of composition. "g." The settlement officer was to estimate, as nearly as possible, the productive power of the land, stated in quantities of some one of the ordinary grain crops; paddy for irrigated lands, and cumboo, cholum, or some other grain for unirrigated. These estimates (hereafter called "grain-values") were to form the basis of the ultimate assessment. They were to be made on a carefully moderate scale, so as to allow for indifferent crops and bad seasons. "h." The land was then to be valued with regard to nearness of village, roads, markets, irrigation facilities, &c., and the field or the village was to be classed accordingly. "i." The assessment was to be moderate. Existing rates were generally based on 50 per cent. of gross produce for wet, and 33 per cent. for dry lands. Sir Thomas Munro's maximum was 30 per cent.; and this was now adopted, on the assumption that the average would run at about 25 per cent. of the gross produce. "j." The ryot's payment was to vary with the ratable money-value (or "commutation-price") of the standard crop, fixed every seven or ten years, on the average of the same period. "k." It was believed that it would not be found necessary to divide the country for the purpose of official scales of prices, *i.e.*, one scale was to apply to the entire Presidency for the term adopted. But this principle was abandoned in practice, and the commutation prices of every district have been calculated independently. "l." The grain-values were to be unalterable for a period of 50 years. "m." It was to be open to the ryot to compound for a fixed annual payment for a term of years. Such composition

for a term of years, and the exaction of revenue from each occupant according to the area of land thus assessed which he occupies. That area may either remain constant, or may be varied from year to year, at the occupant's pleasure, by the relinquishment of old blocks or the occupation of new; the latter being either land hitherto waste, or land which has been relinquished by somebody else. The occupant holds under an annual lease from the Government, and enjoys all the advantages of absolute proprietorship, subject to payment of the revenue due on the lands he holds during the year. Under this system each occupant deals directly with the Government, and is responsible for his own revenue assessment only. A ryotwarry settlement is thus peculiarly a settlement with the peasantry,

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was to be subject to rules as to deductions' for waste, fallow, bad seasons, &c., and the privilege was to be restricted to holdings of some considerable size. "n." The Survey Department and the Settlement Department were to be separate—the former under a Surveyor-General, the latter under a Superintendent of Settlement. (6) The total cost of this scheme was estimated at 76½ lakhs, spread over a period of fifteen or twenty years. The result was expected to be an immediate loss of revenue, consequent on the reduction of the Government share of the gross produce. But this was to be more than recouped by extension of cultivation. This scheme was accepted in the main by the Court of Directors. Objections taken subsequently with regard to certain detailed points were decided at different times as follows, taking the same letter-headings as given above in the last list. "i." The assessment was to be made on the net produce, i.e., after deducting the expenses of cultivation. It was to be a matter of judgment and discretion rather than of arithmetical calculation. In 1864 the Government share of the net produce was fixed by the Secretary of State at one-half. The question had been raised in the Trichinopoly assessment scheme. "j." and "l." The term of settlement was to be thirty years, i.e., both grain-values and commutation prices were to remain unalterable for that period. It was at first proposed to make grain-values unalterable for ever, but the Secretary of State finally decided to the contrary in 1870. "m." Leases for a term of years at reduced rents were found to be unnecessary for the encouragement of large holdings. (7) Two other points have also been since disposed of, viz., the question of water-rate and the question of mirassy rights. The Madras Government had already decided that a separate water-cess should be levied in the Godavery and Kistna deltas, and the Secretary of State desired that a similar plan should be adopted in all other districts where it was found practicable. As a matter of fact, however, the principle of a separate water-rate as a mode of determining the assessments of lands that are permanent rice lands was extended only to one other district, Kurnool; where the levy of a separate water-rate apart from the Government assessment on the land was a necessity arising from the existence of the Madras Irrigation and Canal Company, whose works were constructed under a guarantee from the Government. The principle was maintained when the company's works were transferred to Government in 1882-83. In all districts, lands classed as "dry" pay a rate for water if they take it from a Government source (canal, tank, or river). Lands watered from wells are not subject to extra assessment on this account if the wells be dug on private property, and the former rule by which wells known as "itifag" or "ayacut" that is to say wells dug within a prohibited distance from a Government source of supply or in the registered irrigable area of such source is under recent orders held practically in abeyance. The existence of wells on private lands was in some settlements made on the pretext of imposing higher assessments on the lands than but for the wells they would have borne. The lands thus improved and protected at the expense of their owners were classed as "permanently improved" and assessed at special and higher rates. This violation of the often laid down rule that improvements made at the sole cost of the ryot are not subject to taxation is being remedied under recent orders. Where irrigation is by lift or baling from channels or rivers, a reduction of one rupee is made in the wet-rate, except in Trichinopoly, where such lands were classed as dry. The solution proposed for the mirassy question was that the mirassidars should be offered the culturable waste on the usual terms, and in default of their engaging for it, outsiders were to be admitted, without becoming sub-tenants of the mirassidars. A means was ultimately found of compensating the latter for the loss of the exclusive rights which they claimed in waste lands (see Chingleput note in Vol. II, App. LXII. (8) The department having thus been organised, certain details were settled by the Director in communication with the Board of Revenue, and the result was to leave the work much as it is now and as will be hereafter described. (9) *Surrender of Demarcation to the Survey Department.*—The Settlement Department at first undertook to demarcate the village and field boundaries. This was a tedious process, involving much arbitration and the investigation of many disputes. A patch of waste land in the plains, or a few acres of barren hill side, were disputed by rival villagers with a tenacity fostered by years of factious contention; and though the possession when gained could often be of no use, the claim of either party had to be carefully considered and the work in that spot delayed until the matter was finally settled. The requirements of the Survey Department too were not sufficiently known, and the marks erected in many cases were temporary and destructible, and had frequently to be renewed by others of a more permanent nature. This unsatisfactory work continued to occupy much time and attention until the Godavery, Kistna, Kurnool, Nellore, Salem, Trichinopoly, and Tinnevelly districts were demarcated and surveyed, when the demarcation of boundaries was made over to the Survey Department. This was in 1864. (10) *Detailed Operations.*—When freed from demarcation the settlement establishment was able to turn full attention to its legitimate work of revising the land assessment. To do this it was necessary to obtain a general view of the characteristics of each district about to be settled; to ascertain particulars of the climate, rainfall, and physical features of such tracts or divisions as might differ from each other distinctly; to search the collector's records for information relative to the past history of the districts, their years of plenty or famine, their lands, tenures, mode of taxation, and cause of their gradual progress; to study the relative values of such sources of irrigation as they might possess; to determine how different tracts were affected by roads, canals, market-towns, hill ranges or seaboards; and to acquire a general idea of the prevailing soils in each tract, and the relative value of such black or red loam, sand, or clay as might be found to exist. Each talook was next visited, and the revenue officers and leading ryots assembled, and their opinion asked regarding the relative values of villages under such and such irrigation, or in such and such a position; information was also regarded as to the payment of labor, the method of cultivation pursued, the crops grown, the mode of disposal of surplus grain, and the markets mostly frequented. The villages were next formed into groups, with reference to their several advantages of irrigation, climate, soil, situation, &c., and a series of experiments was made to ascertain the yield of the staple grains. When this was determined a table was framed for the tract under settlement showing the yield of each class of soil, and this yield was converted into money by an average struck on twenty years' market prices, with some abatement for traders' profits and for the distance that the grain usually had to be carried. From the value of the gross produce thus determined the cost of cultivation was deducted, and the remainder or net value of the produce was then divided, and one-half taken as the Government demand on the land. The work so far was done by the officer at the head of each party, but in the meantime his native establishment had been employed in going over the villages and classifying the land according to soil and circumstance. This operation was carefully watched and checked by the head or the party, who eventually prepared a scheme for the settlement of the whole or part of a district, and submitted it for the sanction of Government. (11) *Settlement Work transferred to Collectors.*—By the end of 1864 proposals for the revision of the settlement of the whole of Trichinopoly, of that portion of Kurnool known as Kurnool proper, of the Masulipatam portion of the Kistna district, of one talook of South Arcot, and of the western delta of the Godavery, had

as tenants of the State enjoying a tenant right which can be inherited, sold, or burdened for debt in precisely the same manner as a proprietary right, subject always to payment of the revenue, that is to say, the rent due to the State. There are two-and-a-half millions of such occupants in the ryotwarry districts of the Madras Presidency, with an average holding of eight acres each. In the other ryotwarry presidency of Bombay, without counting Scinde, there are about a million-and-a-half of occupants, with an average holding of eight acres in the northern division of the Presidency, 32 acres in the central division, and 23 acres in the southern division; 12 acres being the average of all together.

102. The operation of making a ryotwarry settlement consists of five stages, demarcation of boundaries, survey, inspection and classification of soils, assessment, and record of rights. The demarcation of boundaries is conducted by the Survey Department and the method of it is noticed in the article on Survey. Disputes as to boundaries are decided by the officer conducting the demarcation in accordance with a procedure laid down by law; that is to say India Act XXVIII of 1860 and Madras Act II of 1884. Permanent boundary marks, whether of fields or villages, are stone or masonry pillars, placed at the main boundary angles. The cost of repair and maintenance is chargeable on the revenue payer. The object of survey is to frame village maps which shall show the position, area, and shape of every field in the village. The scale of such maps is usually either 8 inches or 16 inches to the mile. The tendency of field surveys has been to commence roughly, but to tend more and more to scientific methods. In Madras they take the form of a complete cadastral conjoined with a topographical survey, as described in the article on Survey. The third step consists in the inspection of villages and the classification of villages and soils. Inspection extends to the whole tract of country immediately under settlement, and the settlement officer visits as large a proportion as possible of the villages contained in it, so as to make himself acquainted with the general features of the tract and the condition of each village. The extent of the tract settled at one time varies in different parts of India. It is largest in Madras, where it sometimes comprises a whole sub-division of a district, with an area of 1,000 square miles. The classification of soils is everywhere based on the same general principles, but there is a difference between the manner in which these principles are worked out in Upper and in Southern India. In Upper India the classification is from the first either by natural or artificial soils or both, according as large admixtures of manure have altered the natural qualities of the soil. In Southern India, natural soils alone are looked to in the first instance, and manure is considered subsequently. There are also other differences. Irrigated lands, whether in Upper or Southern India, are universally distinguished from unirrigated. By the time that settlement operations enter upon their fourth stage, that of assess-

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been worked out in this way and submitted for the consideration of Government. The results of these operations of the department so far were not in the opinion of Government satisfactory. Its organisation as a separate department, distinct from the local revenue establishments, was defective; and the experience and knowledge of the district officers were lost, their interest not being enlisted. The personal supervision which the Director could exercise over the operations of scattered parties could be only nominal. The time again available for ascertaining by experiment the productive powers of the soil was necessarily very limited, and the conclusions arrived at by the department had not in this respect commanded confidence. Much time and money were wasted over minute details of little practical value, while the really important work of a settlement was left too much to ill-paid subordinates. (12) Except therefore in certain districts where work was already so far advanced as to make its continuance by the special department desirable, Government resolved to place all settlement operations under the immediate supervision of district officers controlled by the Board of Revenue. This was done in two districts only, Tinnevelly and Nellore, the Collector of the former being from long experience as a settlement officer especially qualified for the duty. (13) *Transfer back to Special Department.*—In Nellore the experiment resulted in such a failure that Government in the end of 1867 transferred the settlement back to the special department. Settlement operations continued everywhere except in Tinnevelly under the control of the special department till the end of 1873, when on the transfer of the then Director to the Board of Revenue, that appointment was placed in abeyance for some months. On the appointment of a temporary incumbent in 1874, the question was again considered of abolishing the department as a separate institution. The settlement of the whole of the Trichinopoly, Kistna, Godavery, Nellore and Salem districts, and of parts of South Arcot, Kurnool, Cuddapah, and Tinnevelly had been by that time completed. The area settled by the department in these fifteen years was 27,892 square miles, and the cost incurred, including demarcation, amounted to Rupees 42,84,775. The cost of settlement proper was Rupees 24,06,733, or 83 rupees per square mile. There remained 27,892 square miles to be settled, and the time estimated to accomplish this was 13 or 14 years. The decision given was in favor of the continuance of the department under a separate head. (14) *Recent Measures of Organization.*—The department continued to be so administered till the latter part of 1879 when in consequence of the financial exigencies of the empire the appointment of Director was abolished and the strength of the department reduced by about half; the department was under these altered conditions administered by a Member of the Board of Revenue. This arrangement lasted till the end of 1882 when the appointment of Director was revived and conjoined with that of the newly-constituted Directorate of Agriculture.

ment, the settlement officer has before him a number of general statistics collected during the survey, inspection, and classification of each village, and especially a scale showing the relative value of fields. The revenue-rate per acre is thence determined. The Madras method of doing this will be hereafter mentioned. The record of rights is the final work of settlement. It consists primarily of the field map and the field register. The former exhibits the position, number, and shape of each field; the latter gives its number, area, and soil-class, shows whether it is irrigated or unirrigated, and states the assessment and the name of the occupant. In framing the field register, the settlement officer frequently finds himself confronted by disputes as to the right of occupancy. In Madras such disputes are at once referred to the civil court, and the name meanwhile entered in the register is that of the party in possession. The field register of a ryotwarry settlement is liable to be recast annually, to the extent of recording the annual changes of occupancy; (see the article on the Land Revenue, Collection, under the heading of Jummahbundy). As the occupant of every field is the revenue-payer for that field, the ryotwarry field register may also be regarded as the annual revenue-roll. A Madras field [2] may be sub-divided indefinitely, and every sub-division, down to the hundredth part of an acre, is distinguished by a serial letter or number and entered in the register under the number of the field.

103. The term for which a temporary settlement of land revenue in British India is usually guaranteed is thirty years. This is the term contemplated in Madras; reckoning from date of each particular settlement of a tract, as defined by the order of Government.[3]

104. CONSTITUTION OF DEPARTMENT.—As mentioned in the foot-note, the Settlement Department is at present under a Director, who combines with that office the duties of Director of Agriculture. The department at present consists of five parties, four of which are regular parties of full strength working on the plains; the other is entertained for special work, viz., the enquiry into and settlement of the Wynaud escheats and Wynaud revenue. An ordinary settlement party consists of a Deputy Director, an Assistant Director, an Uncovenanted Assistant, an office establishment costing Rupees 575 a month, and one Supervisor with field establishments costing Rupees 1,245 a month. No party at present has its full complement of officers. Deputies and Assistants are classed in two grades; a 1st-class Deputy gets Rupees 1,100 a month and 2nd-class Deputy Rupees 750. The Assistants get respectively Rupees 425 and 550. Extra establishments are entertained on occasion of pressure to aid the regular establishments.

105. GENERAL PROCEDURE.—From time immemorial the "field" has been the unit of landed estate in the Southern Presidency, and the public demand on the ryot is the sum of the assessments on his several fields, the assessment on the field being the money-value of the Government share of its produce. To assess a field it is necessary to know either on the one hand the quantity of its produce without reference to its area; or on the other hand its area, and the quantity of the produce of a given part of it or of an equal portion of other fields of similar quality and condition. A settlement based on the former of these methods would be interminable, and necessity compels the adoption of the latter. Of the two

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[2] SURVEY NUMBERS AND REVENUE FIELDS.—As mentioned in the article on the Survey Department, the maximum areas for wet and dry survey "numbers" in that department have been fixed at 2 acres in wet, 4 acres in garden or valuable dry land, and 12 acres in poor dry land. A survey "number" (i.e., a division of land made and numbered at survey) may include several fields merged in it for convenience of survey. Each field so merged is distinguished by a separate letter, as 21 A, 21 B, 21 C, &c., and is registered and dealt with at settlement irrespective of survey clubbing. On an average, there are three such sub-divisions to every survey "number." There is no minimum. Fields included within survey "numbers" were measured up by the survey till 1862, and from 1864 to 1872 the survey was responsible for sketching them in after partial measurement. The expense and trouble involved by these orders led to their abolition in 1872, and interstitial fields are now measured by the Settlement Department after the survey is over.

[3] DATES OF SETTLEMENT.—The dates of settlements in other Indian provinces are as follows. The Central Provinces were settled between 1855 and 1869, and these settlements will expire between 1880 and 1897. The settlement of Oudh has just been completed, and will expire between 1893 and 1906. The revision of the first regular settlement of the North-Western Provinces is on the verge of completion, and these revised settlements again will come under revision between 1882 and 1910. In the Punjaub, revision of settlement in some districts has already begun, and the settlement terms in several others will expire before 1888, but the latest-made original settlements will expire between 1894 and 1908. The case of Bombay is similar; here the last term for original settlements is the year 1900. In Madras only eight districts have been brought under regular settlement, and the settlement term in the earlier settled of these will expire in 1892.

branches of enquiry which the method involves, the determination of areas is the province of the Survey Department, of produce alone that of the Settlement Department. That is to say the Survey Department decides how much land the ryot shall pay for, but the Settlement Department decides at what rate he shall pay. The method of the Settlement Department is first of all to draw up for the Presidency at large a theoretical scheme or classification of soils, then to go round the country and decide that such and such particular fields or areas belong to such and such head of soil classification, and lastly to decide that in such and such localities such and such rates of net produce-value or money-value representing net productive power shall attach to each head of the soil-classification. When it is known that a ryot's field is of such a sort geologically and agriculturally, and that for his neighbourhood the assumed amount of net produce of that sort is so much, he knows how much he has to pay to Government; for Government ask in every case half of the value of the net produce. Net produce means gross produce of cultivable portions, less cost of cultivation and a deduction made for vicissitudes of season.

106. CLASSIFICATION OF SOILS.—Soils in this Presidency fall into one or other of five series; the "regar" or regadi, commonly known as "black cotton," the "red ferruginous," the "arenaceous," the "alluvial and permanently improved," and the "calcareous." The regadi series comprises the black cotton soil, with all its varieties. The red ferruginous series originates from sandstone, laterite, &c., and possesses distinct characteristics in its constitution and fertility. The arenaceous series comprise chiefly the sandy tracts originally deposited from the sea in littoral districts. The alluvial and exceptional provides for rich island soils of extraordinary fertility, and for garden and other soils permanently improved, and ranking above the ordinary cultivation; this however is not a separate series, viewed with regard to the constituent parts, being merely a special condition of one or other of the soils of the three first series. The calcareous series originates from underlying strata of chalk or lime, the original character being more or less modified by atmospheric and other influences as respects the surface soil; it is very rarely found. Each series is divided into classes, the "exceptional" into two, the others into three each; the "class" of a soil is determined by the quantity of "clay" it contains, meaning by "clay" that impalpable matter which is formed by the combination of minute particles of the primitive earths with organic matter in a state of decay. The three soil classes are "clay," "loam," and "sand." Clay soils of each series are those containing more than 66 per cent. of clay; loamy soils, those with one-third to two-thirds clay, and the rest sand; sandy soils, those with more than two-thirds sand. The classification is made by classifiers, under head-classifiers and supervisors. It is simple and easily intelligible. In selecting samples, the soil is turned up to a depth of 6 or 8 inches, and the proportions of sand and clay, where doubtful, are tested by dissolution in water. The "classes" again are subdivided into "sorts," the "sort" being determined on the same consideration as the "class." From the first Government has deprecated any attempt at making an accurately scientific classification of soils. This is difficult anywhere, but is impracticable in India. The classes actually adopted are few and based on real tangible differences of soil; for the most part eye, finger and thumb are the classifier's only guides, and the nearest approach to a scientific method that is allowed him is when in cases of doubt he "tests" for "clay" by simple methods which give its bulk or weight but do not indicate its chemical composition. At first the number of "sorts" in a "class" was only two, but experience proved such a scale to be too inelastic, and the number has been increased first to three and since to five. The classes and sorts are combined and arranged in order of fertility. The classification of each field is recorded in the settlement register, and that of blocks of fields classified on the eyesketch bound up with the register. To the experienced classifier the practical application of the classification table is not difficult; the work of the classifier is checked by the head classifier, and his again by the supervisor and the head of the party.

107. A revenue system based on field assessment seems to demand naturally and necessarily the separate classification of each individual field, and this is the sanctioned method of the department; it is at the same time laid down that "though

the details of classification extend to each field, the wider comparative view of the operations should never be lost sight of, as it is most desirable that the land should be viewed in a comprehensive way by the classifier." The detailed method of classification excited opposition at a very early period of the history of the department. It was objected that classification should not be left to men paid some Rupees 10 a month, and it was proposed that the system of detailed field classification should be replaced by a system of classification in blocks laid out by native officers, but valued by Europeans. It was pointed out in reply that the result would in both cases be practically the same, and the proposal was negatived as impracticable. The question was again revived in 1875 in connection with the settlement of certain villages of the Chingleput district. The method advocated then by the Director was that the officer conducting the settlement should lay out the land in blocks so similarly circumstanced in regard to soil, former assessment, cultivation, distance from village, tank, &c., that they might be safely charged at the same average rate. Under this system the classifier instead of preceding the head of the party was to follow him, merely filling in details of registry for the lands inspected and laid out by the settling officer in consultation with the ryots. For this system it was claimed that fraud was almost impossible, while the officer conducting the settlement had from first to last a perfect knowledge of every detail of the country with which he was dealing, and could afford to dispense with the voluminous returns invented as checks on ill-paid subordinates. As a method of work the Government have disapproved of the plan, but encourage blocking as a sequel to field classification, and as in fact an office arrangement made for the purpose of check and revision. To the extent to which the revising officer applies the block system, results are of course rough in lieu of detailed. Under this system it is evident that the average run of soils must determine the classification of a block, and that isolated fields and small tracts of better or worse quality than the average of the block must gain or lose by inclusion within it.

108. CALCULATION OF RATES FOR NET PRODUCE.—In fixing the produce value of land of any class in any area, the first step is to find the grain-value of such land, the second to commute this into terms of money, the third to deduct from the total value what is requisite to reduce it to net value.

109. Grain values are assigned to every class and sort of land, "wet" and "dry." The criterion of such values is experience, and this is sought for in experiments by officers of the department, in the knowledge acquired during long years of service by tahsildars and similar responsible officers of Government, in the records of produce entered in the old village accounts, and in the admissions of the ryots. The actual experiments consist in reaping, threshing, and weighing the crop upon small areas (such as half an acre) in selected fields. The number of experiments in some districts has exceeded two or even three thousand. The results are taken as a general guide to the grain-values, but not more. "Wet" lands are always valued in white paddy, "dry" lands in one or more of the local standard food products, the more common descriptions of the latter being cholam, sadza or cumboo, varagoo and raggy. The grain-value of a particular soil in a particular locality is assigned thus. The gross average produce per acre of soils of the same class is determined on the data noted above; this quantity is reduced to terms of heaped Madras measures, each measure itself containing 100 cubic inches, and weighing approximately a seer-and-a-half or 3·085 lb. or 120 tolahs of second-sort rice. From the gross produce is deducted from one-sixth to one-fourth according to circumstances on account of vicissitudes of season and of those portions of fields which being taken up by paths, channels or bunds are unproductive; the remainder is taken as the "grain-value" of the soil for the purposes of settlement.

110. The next step is to turn this into money. The grain-value is commuted into money at a price which, under the orders of Government, is fixed for all settlements of the present series on the average of the twenty years from 1845 to 1864. The average is taken by Government of market prices for that period, and the figure is then reduced by deducting a percentage varying according to locality which is intended to represent the difference between the ryots' and the merchants'

selling prices; the remainder is the commutation price. The standard of measure for commutation prices is the Madras garce of 4,267 seers.

111. The third step is to get what is technically known as "net produce." The money-value of the net produce is found by deducting from the money-value of the total produce arrived at as just described the expenses of cultivation. These are made up of the cost of cattle, implements, manure, seed and sowing, transplanting (in wet), and the wages of servants permanent and temporary. The expenditure on all these items except the first and second must be freshly incurred every year; but cattle and implements will last for several years, and their cost is distributed equally over all. The cost of cattle, implements, seed, the wages of permanent servants, and the cost of transplanting are taken as constant whatever the soil. It is obvious that the ryot will employ the same cattle and implements on any land he may have without reference to its soil; the quantity of seed sown is much the same on all kinds of soil; the wages of permanent farm servants do not depend upon the soil of the farm they are employed on; the cost of transplanting is a question not of soil but of area; and the cost of sowing is properly included in the hire of the permanent farm servants. The only items of the cost of cultivation that may be regarded as varying therefrom are manure and harvest labor. The soils having been valued at so much per acre it is necessary to determine the cost of cultivation by the same standard. This is done by ascertaining the size of an average holding in wet and in dry and by distributing the various items which make up the total cost of its cultivation rateably over its acreage. The difference between the value of the produce adjusted and commuted in the manner indicated above and the cost of cultivation is the value of the net produce, half of which is the land assessment.

112. The results of these calculations are embodied, as already said, in a table of acreage money rates for each class and sort of land for the particular tract under settlement. The exhaustive nature of the inquiries and calculations may be inferred from the fact that as many as 35 different money rates are sometimes struck for a single revenue district, ranging from 4 annas to 20 rupees per acre. As a specimen of tables, that for the district of North Arcot is shown in the foot-note.[4] Towards the end of 1879 it was proposed that this method of work

[4] TABLE OF SETTLEMENT MONEY RATES FOR NORTH ARCOT.

Dry.

Soil: Class.	Soil: Sort.	1st Class: Taram.	1st Class: Rate (RS. A.)	2nd Class: Taram.	2nd Class: Rate (RS. A.)
2	1	1	3 8	1	3 8
2	2	2	3 0	2	3 0
3 4	1 1	4	3 0	5	2 4
2	3	3	2 8	3	2 8
3 4 7	2 2 1	5	2 4	6	1 12
3 4 5 7 8	3 3 1 2 1	6	1 12	7	1 6
3 4 5 7 8	4 4 2 3 2	7	1 6	8	1 0
3 4 5 7 8	5 5 3 4 3	8	1 0	9	0 12
5 7 8	4 5 4	9	0 12	10	0 8
5 8	5 5	10	0 8	11	0 6

Wet.

Soil: Class.	Soil: Sort.	1st Class: Taram.	1st Class: Rate (RS. A.)	2nd Class: Taram.	2nd Class: Rate (RS. A.)	3rd Class: Taram.	3rd Class: Rate (RS. A.)	4th Class: Taram.	4th Class: Rate (RS. A.)
4	1	1	8 0	2	7 8	3	7 0	4	6 8
3 4 7	1 2 1	3	7 0	4	6 8	5	6 0	6	5 8
3 4 5 7	2 3 1 2	5	6 0	6	5 8	8	5 0	10	4 8
8 3 4 5 7 8	1 3 4 2 3 2	7	5 4	9	4 12	11	4 4	13	3 12
3 4 5 7 8	4 5 3 4 3	10	4 8	12	4 0	14	3 8	16	3 0
3 5 7 8	5 4 5 4	13	3 12	15	3 4	16	3 0	17	2 8
5 8	5 5	16	3 0	17	2 8	17	2 8	18	2 0
...	...	...	...	...	...	...	...	...	...

should be modified and it was suggested that instead of laboriously working up as theretofore to a table of rates settlement operations in a new district should commence with the determination of such a table of rates as on consideration of the general condition of the district and of the rates adopted in other and neighbouring settled districts similarly conditioned might be deemed suitable. In pursuance of this suggestion a standard table of rates in which were embodied the more salient features of every settlement that had been made was drawn up. Government were at first opposed to the adoption of this method, but after some correspondence with the Secretary of State they sanctioned the adoption of the principle tentatively. The application in practice of the table has induced a doubt as to whether the method may not require some modification and the matter is now under consideration in connection with the settlement of Madura and South Arcot.

113. Registry.—The results of the settlement, showing finally the rate of produce value set against each field and holding in a village, are recorded in registers which show the area, assessment, holder's name and other descriptive particulars of every Government field. The same particulars are also given in these registers regarding inams, though in this case the assessment is calculated and entered merely for the purposes of assessment to local cesses, and for guidance in case of the reversion or escheat of the inam. Thirty copies of each register have been printed and distributed, one-third for sale to the ryots, one-third for official use, and one-third for reserve in store. When a settlement is concluded, the results, embodied in fieldwar settlement registers printed in diglott for each village, are handed over to the ordinary revenue authorities.

114. Miscellaneous Operations.—The work of introducing the settlement by issuing puttahs to the proper persons is one of the most important parts of the process of settlement. In the districts first settled it was thought sufficient to accept existing entries in the Government account, and to issue puttahs in the names in which they then stood, but latterly more has been done, and many thousands of puttahs have after due enquiry and where no civil disputes arise been changed from the names of deceased ryots or vendors to those of the actual occupants of the land exhibited in these puttahs. Further the opportunity of the settlement has been taken to divide common lands, to allot necessary grazing grounds, and to transfer lands improperly assessed as wet to dry and 'vice versâ.' As an average district contains 120,000 Government ryots and some 10 lakhs of fields, these proceedings have involved considerable labour. It may be noted that a settlement imposes not only an acreage charge on the lands in each present ryot's holding, but it fixes the charge on each acre of waste likely to be cultivated hereafter.

115. Duration of Settlement.—The term of the Madras ryotwarry settlement is, according to the present intentions of Government, thirty years from the date of the completion of each particular local settlement, at the end of which time not only the commutation money rates but the grain values themselves now assigned to the land are liable to revision. The Government reserve the right, that is to say to derive benefit in the future from a share of the increased value conferred on the land by improved administration, the construction of public works, especially works of irrigation and railways, and the improved price of agricultural produce. It is improbable that any future revision will be at all so extensive as that which is now in progress, and the cost of it will probably be in comparison very small. It was proposed some years ago that the ryotwarry settlement now made should be continued in perpetuity, but the tendency of modern opinion is adverse to such a course.

116. Financial and Other Results.—From the first beginning of operations in 1858 to the end of 1883-84 there have been fully settled the districts of Trichinopoly, Godavery, Kistna, Kurnool, Salem, Nellore, Tinnevelly, Chingleput, Cuddapah, Ganjam and Coimbatore, and in part the districts of North and South Arcot. Operations in Madura, South Arcot and the Neilgherries are also in progress. Besides the districts in hand it is intended to extend operations to the districts of Bellary, Anantapore, Vizagapatam, Canara, Malabar, and Tanjore. The area dealt with up to 1883-84 was 44,890 square miles, the operations on which had cost in the Settlement Department alone Rupees 74,09,267, and in the Survey and Settlement

Departments together Rupees 2,08,12,521. The result of settlement operations so far as to rates has been the application of 35 single crop rates varying from Rupees 12 to Rupee 1 in wet, and of 28 varying from Rupees 20 to Annas 4 in dry. The dry rate of Rupees 20 was specially adopted for the rich lunkas of the Godavery. The highest double crop rate is Rupees 20, which in Tinnevelly replaced a charge of Rupees 35 an acre. The rates which these have superseded were very numerous and very various. As regards the cost relative to revenue gained (taking the percentage on one year's total revenue as the test), the Godavery and Kistna districts are those in which it has been least, amounting to less than one-third. In Trichinopoly, Salem, Nellore, Tinnevelly, Coimbatore and Chingleput taken together, this ratio is about two-thirds. Kurnool is the district where the settlement has been relatively most expensive, costing nearly as much as an entire year's revenue. In Cuddapah the cost exceeded more than one and-a-half times the present revenue. The immediate total result of the settlements introduced so far as to revenue has been the addition to the yearly public revenue of Rupees 16,39,553, which sum bears a proportion of 7·9 per cent. to the total cost of the settlement and survey combined taking it from the commencement. Illustrative figures are given below.[5] It is impossible at present to make any trustworthy forecast of the probable duration of operations and of their cost. The value of the revenue settlement is not to be estimated merely by financial results. There are other important advantages, best described in the words of a recent Director :—"It is a great work, well done on the whole, and capable of very simple revision and improvement at the end of the 30 years' period. The cost is great, but the results pay 10 per cent. on the total outlay so far, and we have in addition maps and registers of every Government village, and a simple revenue system, the permanent definition of boundaries, and the disposal of endless disputes." The operations of a revenue settlement are proverbially tedious, but on their thoroughness depend both the efficiency and justice of a great portion of Indian local administration.

117. Law.—The chief legal enactments specially affecting the Madras settlement officer are as follows. (1) Madras Regulation XXV of 1802; a regulation for declaring the proprietary right of lands to be vested in individual persons and for defining the rights of such persons, under a permanent assessment of the land revenue in the British territories subject to the Presidency of Fort St. George. (2) Madras Regulation XII of 1816; a regulation for authorizing collectors to refer claims regarding lands or crops, the validity of which claims may depend on the determination of a disputed boundary; as also certain disputes respecting the occupying, cultivating, and irrigating of land, to be tried and determined by village and district punchayets; and for prescribing the rules under which the trial of such disputes shall be conducted, and the decisions of the punchayets carried into execu-

[5] Financial Results to 1884.

Years of settlement.	District.	Old yearly assessment.	New yearly assessment.	Total cost of survey and settlement combined from the commencement.	Cost of settlement only.	Area in square miles dealt with.	Cost of settlement per square mile.
		RS.	RS.	RS.	RS.		RS.
1855—1862 ...	South Arcot (part)	5,28,518	5,49,593	8,29,286	31,716	209	152
1858—1865 ...	Godavery	20,54,721	26,01,521	8,46,206	1,87,545	1,969	95
1858—1865 ...	Trichinopoly ...	16,11,492	14,86,800	6,24,057	3,13,764	2,107	149
1859—1874 ...	Kistna	30,04,342	36,16,264	12,01,732	3,91,442	4,548	86
1859—1874 ...	Salem	18,26,265	16,56,904	13,89,567	4,28,560	2,931	146
1859—1879 ...	Kurnool	13,16,798	11,86,367	15,39,861	3,18,749	3,367	95
1861—1875 ...	Nellore	17,49,491	19,18,106	11,34,654	3,79,059	4,895	77
1862—1878 ...	Tinnevelly ...	25,11,027	26,71,608	16,08,246	5,44,630	2,929	186
1866—1879 ...	Chingleput ...	13,57,612	15,24,045	13,34,537	4,34,311	2,008	216
1865—1882 ...	Cuddapah ...	15,60,605	16,71,302	27,14,086	8,06,195	7,476	108
1866—1883 ...	Ganjam	4,82,685	5,50,993	11,90,885	3,61,959	928	390
1867—1881 ...	Coimbatore ...	25,28,299	26,54,146	21,80,213	5,08,873	4,655	109
1871—1884 ...	North Arcot (part).	6,65,800	7,49,559	14,49,821	3,44,069	2,990	115
	Total ...	2,11,97,655	2,28,37,208	1,80,43,151	50,50,872	41,012	123

tion. (3) India Act XXVIII of 1860—Boundary marks. (4) Madras Act II of 1864—an Act to consolidate the laws for recovery of arrears of revenue. (5) Madras Act I of 1876—an Act to make better provision for the separate assessment of alienated portions of permanently-settled estates. (6) Madras Act II of 1884 (amending India Act XXVIII of 1860)—Boundary marks. The law in detail is shown under the heads of "Permanent Settlement" and "Revenue Settlement" in Vol. II, App. LIV; and the rules having the force of law in foot-note [6] below.

LAND REVENUE TENURES.

118. INTRODUCTION.—Whatever be the correct theory of law or political economy as to the nature of the rights of Government in respect to land,[1] an abstract

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[6] SETTLEMENT RULES HAVING THE FORCE OF LAW.—The principal departmental rules in force in the department are instructions to the Deputy Director of Revenue Settlement and instructions to Head Classifiers and Classifiers.

[1] SKETCH HISTORY OF LAND REVENUE IN THE MADRAS PRESIDENCY—(A) ANCIENT HISTORY.—*Growth of landed institutions.*—No conjecture can be made as to when the races of Southern India passed from a pastoral to an agricultural state. The oldest portion however of the Tamul language shows agriculture as being practised. The first step in the transition between the two states is wandering or shifting cultivation, such as still remains among the hill-tribes. The next step is the formation of stationary villages. In the earliest villages of the south the community was governed by a headman, there was a concentrated system for regulating common affairs, and the division of labor was carried out in the practice of the different trades and professions by individuals receiving a regulated remuneration. Local taxes also for common purposes were levied rateably. The ownership by the individual however in the soil itself was at first weak, for the land being abundant was the property of him who liked to take it, and, there being more in reserve, occupation alone could give to the land but a slight marketable value. Ownership gradually grew stronger as occupants closed in on the first settlers. The Government, as soon as any arose, limited its operations to taking from each individual cultivator a share of the produce. This primitive form of village corporation remains more or less intact in many places to this day, the only difference being that the lower orders have been to a considerable extent emancipated and that the Government have assumed the additional duty of assigning waste lands to new occupants. In the village system here described there was no joint claim to the whole village area, including waste; and there was no combination to exclude strangers. Another form of village community sprung up at a more recent date. This form was the result of an occupation by a body democratic among themselves, but forming an exclusive oligarchy as regards others whom they found before them. The distinctive features of this system of village corporation were that the dominant race claimed a strong proprietary right in the whole of the village area whether cultivated or uncultivated; that they gave no franchise to strangers; and that in their own internal administration they had a tendency to communism, and adopted government by punchayet or committee in preference to that by a single headman. In other respects the arrangements were the same as in the more ancient form. The details of their land administration will be mentioned in this note hereafter. The Government had no concern with the distribution of lands, and it is believed that they settled, not with the individual cultivator singly, but jointly with the village authorities. These communities also exist to this day, but their special characteristics have been much curtailed. The punchayets are of less importance than they were, and have generally given place to headmen. The rents to the dominant body survive in a few cases only of what are called Swatantrams in the Chingleput district; and the rights to the waste, though still asserted by Mirassidars and kareikarar in the southern districts, are recognized by Government only as a preferential claim, to be indulged under certain conditions and in common with other inhabitants of the village. It has been stated by some that this form of community is due to Aryan influence. It may be so, but it is equally possible that it represents the system of the more civilized Dravidians when in contact with an earlier and weaker race. (2) *Ancient Proprietary Rights.*—In the times of the early village communities proprietary rights, as defined by powers to alienate, existed to a very trifling extent. In the more ancient form of community, as has been said, tenures had no market-value; and in the later and more democratic communities where rights were more decided, the land was not an individual but a common property, and one man could not without the consent of the others sell to a stranger. Still transactions occurred in the latter case among the members of the community themselves, which showed an individual ownership within that limit. Sales were not common, and mortgages were usually not foreclosable for a very long period; but the latter existed in abundance, showing a certain value in individual ownership of landed property. Individual property in land sprung up earlier than elsewhere in the districts on the western coast, probably owing to the political circumstances which rendered the Government authority weak and the State demands light. The attitude of the Dravidian or Hindoo rulers with regard to the soil has been much discussed. It probably varied entirely with the circumstances of times and places. The object of Government in this connection is to obtain revenues for Government purposes. If it found communities so organized as to be able to farm the villages properly and to render the proper State dues, the Government would not interfere in the direction of the disposal of the lands claimed by the community. If it found an imperfect organization it would be forced to interfere in the disposal of the lands especially of the waste lands, with a view to the proper development of the country and realization of the revenue. The tendency probably was for the villagers to lean more and more on the Government in these matters, and hence in many parts of the country the State interference became a regular institution. Still there is no evidence that any Hindoo government ever took the step of ejecting an occupier; even if they failed to obtain their dues from him they limited their reprisals to personal torture or sale of movable property. The land sale law is not a native institution. As indicated in the text, the discussion whether the Indian governments are "proprietors" of the soil or not seems to be little more than a dispute about words. (3) *Slavery.*—By far the greater part of the laboring classes of the people must have been, during the early historical periods, in a state of acknowledged slavery. In Malabar and Canara, where the land became gradually the subject of distinct properties, the laborer was the personal slave of the occupier of the soil and was liable to be sold and mortgaged by him independently of his lands. In the Tamul country the slave was considered rather as attached to the soil. In the Teloogoo country only does slavery seem to have been weak. It must be noticed, however, that South Indian slavery was always domestic, and never the subject of foreign traffic. It even appears that in the Tamul country the Pariahs or Pullars, slaves attached to the Vellalars, and the Pullies, slaves attached to the Brahmins, used to claim hereditary landed property as the incident of their slavery. Slavery did not survive the Hindoo period, except to a very limited extent. As long as the Government land-tax was moderately light, as it is believed to have been in the Hindoo period, the proprietor could afford to maintain slaves and servants to cultivate for him. The Mahomedans are believed to have raised the land-tax and rendered it necessary for the landlord to work at the plough in his own person or with the help of his family. This is the explanation usually given, and there is probably some truth in it; it is by some, however, denied that the land-dues of the Mahomedans were higher than those which obtained before their time. It is at any rate certain that slavery has gradually died out. (4) *Early System of Government Land Revenue.*—In the earliest times the land-revenue was the sole Government impost,

question which has been much discussed, it is apparent that they must, as a Government representing the interests of the people at large, exercise a considerable amount of interference in affairs connected with the land. Whether this is called executive administration or exercise of a proprietary right is not of much importance. A

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and the revenue system of the country may be said to have been founded on the absence of taxation properly so called. This principle has been brought down to the present day with no very great modification, and has met with opponents. The oriental theory, as now interpreted, is that the portion of the produce of the land which is given by nature, as opposed to that which is produced as the interest of invested capital, is the proper source from which to draw revenue; and that if this be not alienated to individuals, or appropriated by them by prescription, the necessity of taxing labor or capital is obviated. This state of things is not inconsistent with the creation of private property in the occupation of land, in capital sunk in it, and in that portion of the rent which is allowed to individuals to give them an interest in the soil. The land-revenue was levied by all Hindoo governments in the shape of a proportion of the gross produce fixed according to the capacity of different soils and the value of different products, or the commuted money-value of that proportion. There was no settlement for a succession of years or seasons, but each crop was divided as it was produced. The Metayer system of Italy and some other modern continental countries is but a repetition of this plan. The Government share was usually taken in kind under what is now called the Amauny system. In those times when the boundaries of fields were ill-defined and the holdings very small and intermixed, and where it was the practice to thresh out grain at once after reaping, it was easier, and gave less opportunity for abuse, to divide the grain so threshed out than to calculate annual money-payments according to the quantity and quality of land actually cultivated. In certain cases, however, the value of the crop was estimated after reaping, and a portion of this value was paid in money to the State. The commutation system would naturally take the place of the other where joint settlements were made with villages. It was also considered more applicable to dry-land crops than to wet-land crops. The amount of the Government share in Hindoo times was very fluctuating. The institutes of Menoo would have it that the State should take of grain only "an eighth part, a tenth, or a twelfth, according to the difference of the soil, and the labor necessary to cultivate it." But it is quite certain that the average share under Hindoo governments considerably exceeded these theoretical limits. The Hindoo share was, as first mentioned, probably less than the Mahomedan share, but it must have been very much above the share of Menoo, or it will be impossible to account for the slow development of individual landed property. It is probable that in times of war the land demand was increased. (5) (B) MODERN PRE-MAHOMEDAN PERIOD.—*Division of the Country.*—Certain characteristics have been mentioned which are believed to have been broadly true of the whole of Southern India in ancient Hindoo times. If a step forward is taken, and the approximately modern pre-Mahomedan period is considered, considerable variations are found in different parts of the country. For convenience sake the country as existing at that period may be roughly divided into three principal tracts, the Tamul Country, the West Coast, and the Teloogoo Country. (6) *The Tamul Country.*—The Tamul country lies between Nellore on the north and the most southern extremity of the East Coast, skirting the Mysore plateau on the eastern side. It was the scene of the three old Hindoo dynasties of Pandya, Chola and Chera. The exact limits of these kingdoms cannot now be traced, and without doubt were in a state of constant change. It is only known with certainty that they met near Caroor, about 40 miles west of Trichinopoly, a town which alternately passed into the hands of each of the rivals. Pandya is generally identified with Madura, Chola with Tanjore, and Chera with Salem. In the Tamul country the republican form of village community above mentioned was especially prevalent. On the first establishment of a Tamul village the rights of occupancy of the whole land were divided into a number of equal shares or "ploughs," and apportioned to the different members of the settling community. At the earliest stage it is probable that there was common cultivation, and that the net produce after payment of taxes was divided according to the shares. Subsequently individual cultivation seems to have been carried on, but the land to be cultivated by each was reapportioned by lot in the original proportions either annually or at every five, six, or ten years. In Tanjore, Tinnevelly, Madura, Dindigul, and the other Tamul provinces south of the Coleroon, individual occupancy seems to have arisen at an early date. The division of lands was then considered permanent, and as far as occupation and cultivation went, the ancient collective tenure was converted into one of severalty. For all other purposes, however, the communistic principle still prevailed. A sharer could not sell his land without the consent of the community and on the other hand the possession of a share, whether inherited or acquired by sale or mortgage, gave a proportionate claim to all incidents common to the village, as for instance the advantage arising out of mines or quarries, fisheries, forests, taking up of new waste, pasturage, &c. Gradually the shares became subdivided; but in the accounts of the village the original partition always remained, the small holdings being represented in terms fractional of the original shares, and the possessor of a reduced share possessing a corresponding share of the communistic rights and duties. The name given to these communistic rights and duties was Caniauchy among the Vellalars. When the property fell into the hands of the Brahmins it was called Swastiam. The same property when found in the possession of Mahomedans or native Christians was called Mirassy, the name now most usually employed in all cases; Mirass is an Arabic word, meaning inheritance or patrimony. Pasangkaray in Tamul and Sarwadayam in Sanscrit are also terms for the same thing. In some instances, principally in Tanjore, the whole Mirassy of a village was vested, either by purchase or otherwise, in the hands of one individual; it was then called Yecabhogam. The duties of the individual Mirassidars, as such, consisted of paying certain small taxes or "Meray" to the community for purposes of internal village administration. The following list taken from old accounts is illustrative of the nature of these taxes:—To feeding Brahmins on particular festivals; to lighting the village temples and gates; to expenses incurred on certain anniversaries; to feeding travellers and strangers, one meal to each; to repairing the village wall; to repairing the chief temple; to constructing a new gate for the village; paid to certain men for killing a tiger, &c. The rights of the Mirassidars were more numerous than their duties, the institution being one for the assertion rather of the former than of the latter. Against the Government the Mirassidars asserted freedom from all interference in the apportionment of land within the village boundary, or in the management of village affairs; claiming the exclusive right to a hereditary possession and usufruct of the former and a hereditary authority in the latter. In Tondeimandalam lying between the south of Nellore and the Coleroon, or the country now comprising Chingleput and North and South Arcot, the Mirassidars claimed also as a perquisite a portion of arable land, called gramamanyam, free of all Government demands. Against non-Mirassidars the claims of the Mirassidars were the same as those of any owner of landed property against strangers, the latter having no part in the corporation and being admitted to cultivate only on sufferance. Non-Mirassidars paid village taxes to the Mirassy corporation, and these contributions eventually no doubt removed the necessity for the Mirassidars themselves making any contributions at all; at the present day we find the Mirassidars in some localities claiming such contributions from non-Mirassidars, in the form of a proportionate deduction from the gross produce of lands paying tax to Government, and this merely as a perquisite and without making any return for it. The village government was carried on by a punchayet, or body of five, and the headman was only president in a sort of council. The management of all internal details and the realization of the Government dues from the individual cultivator vested with this body or their delegates, and public opinion was no doubt the check on injustice. The collection of the revenue cost the Government nothing. The demand was a maximum demand liable to remissions on the report of the village authorities. In early times each village was composed of a number of families claiming to be of the same brotherhood or class, and generally the villages in the same part of the country were of one tribe or sub-division of a tribe. The principal caste was that of the Vellalar, the professional cultivator. Non-Mirassidars were nearly always tenants of the Mirassidars collectively or severally, and in that capacity they were called Poyacarries. Besides the village merays, they paid an ordinary rent. The profit of the Mirassidar owner after paying Government dues was called Swamibhogam or landlord's profit. In many cases one family of tenants rented the same farm at a stipulated amount of share of produce for several generations, and thus gradually acquired a prescriptive right to remain and not to have their rents

modern Government assumes large powers of interference under the unwritten traditional law of this and all other countries. The subject of land-tenures under Government will be classified here according to the extent to which the Government has parted with its own powers to control the disposal of, or the revenue

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raised. They also gradually acquired rights of alienation. This class of tenants was called oolcoody or inside cultivator. Tenants who had not attained to such a position were called paracoody or foreign cultivator. These tenancies resembled very closely those of the 'coloni' and 'aratores' of the Roman empire. That the Mirassidars enjoyed a clear landlord's rent, and that individual property gradually arose, may be seen from deeds of sale belonging to the period. The Mirassy system flourished as long as the Government demand was not excessive. The Mahomedan rulers are generally supposed to have augmented the land-tax to such a point as to have absorbed all landlords' rents, and to have reduced the Mirassidars to much the same position as an oolcoody. Tanjore retained the Mirassy system the longest, and at the beginning of this century the landlord's rent was still about 25 per cent. of the crop. At the same period the Tinnevelly rent had sunk to 13½ per cent. It should be mentioned, to render the description of the Tamul system complete, that Manyams or alienations of State demands on certain lands were already prevalent in the Hindoo period. In these cases the alienation was either in favor of a village servant in accordance with custom and under the authority of the village register, when it was classed as Tarapady; or in favor of some independent person under special grant from the ruling power, when it was called Sunnud or Dumbaula. The Mirassidars paid the Government tax on Manyam lands to the persons to whom the rights of Government were under these arrangements transferred. Occasionally the payee would himself get possession of the land, and pay the Government dues to himself; whether this was done with the consent of the Government, or only by accident and encroachment, is a point much debated. (7) *The West Coast.*—The tract of country known to ancient Hindoo geographers as Kerala comprised the whole of the tract lying along the Western Coast and under the mountains as far as Gocarna in North Canara. Travancore and Cochin were from the first under rajahs belonging to the land-owning class. Malabar was similarly ruled, but broke up in the ninth century into a number of petty principalities, among the chief of which was that of the Zamorins at Calicut found still in authority by Vasco da Gama at the end of the fifteenth century. Tooloova, or Canara as it has erroneously been called by the British, was established as a separate Hindoo dynasty held by the land-owing class; but in the twelfth century this dynasty made way for that of the Pandyans, and a century later for that of the Teloogoo-speaking kings of Vijianugger, the representatives of the old Carnatic or Canara empire. The characteristic of the whole of the Kerala country was the presence of a strongly developed personal and individual land-property, the absence of a Government tax on land, the absence of a concentrated village system such as obtained in the Carnatic, and the existence of a military tenure similar to the feudal system of Europe. The country was originally sub-divided between a race of Brahmins or priests called Numboories, and a military tribe called Nayars; these two holding in subjection the agriculturalists of the country, consisting of persons called Teeyars and others. The Nayars paid no land-tax, but attended the kings to the field with their retainers. The Numboories also paid no land-tax, but furnished the expenses for the support of the temples. In the ninth century a Zamorin of Calicut became a convert to Mahomedanism, and about this time a large colony of Mahomedan settlers of Arabian descent were allowed to occupy lands in Malabar. These Mahomedans, called Moplahs, were mostly merchants, and were equally exempted from payment of direct land-tax. In the absence of land-tax the kings of the country had considerable domains assigned to them, which were cultivated by slaves and yielded a sufficient revenue for household expenses. The subordinate chiefs maintained their own internal police arrangements, and, excepting in time of war, the personal expenses of the rajahs were not large. But they were not without other branches of revenue. A succession duty equal to 25 per cent. on the value of the estates was levied on Mahomedan subjects being land-holders. There were also import and export duties, mint duties, fines, escheats, confiscations, protection money received from persons of other States who claimed asylum, benevolences in the shape of offerings made to the Crown at great festivals or on an occasion, and fees on marriages of important persons. There were also license-taxes and royalties on gold ore, elephants, ivory, teak-trees, bamboos, and vessels wrecked on the coast. The inhabitants of the West Coast did not congregate together in villages, but resided in scattered habitations on their farms and in their gardens. For fiscal arrangements there were authorities in charge of defined tracts of country. The proprietary right in the land differed from Mirassy right in being individual and not communistic. Whether enjoyed by the original Nayars and Numboories, or by the more recent Moplahs, it was equally called Jenm, or birth-right. The owners seldom cultivated their own lands, but let them out on limited leases to tenants called Pauttomcars. The Crown ceased to recognize the immunity from land-tax if an original Jenmdar once parted by sale with his right. Hence mortgage was the rule of the country, and sales scarcely ever occurred. The mortgagee again could not acquire the Jenm right by simply foreclosing; the landlord never losing the power of subsequently reclaiming his property by paying the principal, and being always entitled to some recognition of his ownership even if it were only given in the shape of a sheaf of corn or a pound of butter. The Malabar mortgages possessed another peculiarity in the principle of self-redemption. On the death of the owner of mortgaged lands, it was usual for the heir to furnish a new instrument recognizing the act of his predecessor, but on this occasion he was entitled to deduct 13 per cent. from the principal of the debt. Thus in a few generations the lands reverted to the ancient family proprietors. These were the primitive tenures of the West Coast, and as long as they were recognized by the Governments, there can be little surprise that landed property so carefully protected should be strongly asserted by the holders. There is no trace that up to the time of the Mahomedan invasions there was any land-tax south of Tooloova, and in the southernmost part of Tooloova it must have been even then a very light one. The Tooloova country began to change its land-revenue features in the thirteenth century when invaded by the Pandyan king. On that occasion the original Nayars seemed to have been dispossessed in favor of a race of cultivators called Hullers, and in making the transfer of property the land tax, such as it was, suffered an increase. It is reported that the new government required the grain to be husked before being delivered into the public stores, thus adding 10 per cent. to the impost. In A.D. 1336 when Tooloova came under the Rajah of Vijianugger, the system was still further adapted to that prevailing in the north. (8) *The Teloogoo Country.*—Regarding the Teloogoo country as it existed in the pre-Mahomedan period there is much less to say than regarding the two other main divisions of the Presidency; partly because it had less characteristic features, and partly because such special features as it possessed have been almost entirely obliterated by the subsequent Mahomedan and British occupations, and information on the subject is therefore very meagre. As far as can be ascertained, the village system in the Teloogoo country was more of the ancient non-republican form than in the more southern parts of the country. There are traces, however, in certain parts, of a right akin to Mirassy right in the ancient landholders whom the Mahomedans called Kadeem. It is known that a large proportion of the cultivators, if not all of them, possessed under the old rajahs the privilege of hereditary occupancy, and that their assessment was light. Hence the land must have been saleable. Traces of landed proprietorship are however by no means so clear as on the West Coast, or even as in Tondeimandalam. The hilly portions of the country seem to have been from time immemorial parcelled out among chieftains of the military class, who held hereditarily, exercised uncontrolled territorial jurisdiction within their limits, and appropriated the entire revenues subject to the condition of performing military service or other offices at the Court of their superior rajah, at Cuttack or Vijianugger for instance. In the plains were found a number of petty non-military Hindoo rajahs, forming an ordinary landed aristocracy. These petty chieftainships obtain more or less all over the Presidency, but are the more noteworthy in the Teloogoo country, because it is there, that they have been principally supported and incorporated into the revenue system by subsequent governments. The origin of these chieftainships was no doubt various, and while some represented old families, others were at the time of the Mahomedan invasions little more than Government officers for the collection of revenue in large tracts. (9) (C) THE MAHOMEDAN PERIOD. *Mahomedan Invasions.*—India has twice been subject to Mahomedan rule, once under the Turks after the invasion of Mahmood of Ghuznee in the eleventh century, and once under the Moghuls after the invasion of Baber in

demand on, the land; beginning with the cases of greatest alienation and ending with those of least. A classification according to either one or other of those two descriptions of control would have been preferable; but the subject is too complex to admit of such treatment. Following then this rough classification, the main

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the sixteenth century. On each of these occasions the southern part of the peninsula was overrun by the conquerors, though not to the same extent as more northern provinces. About the year 1300 Allah-ood-deen formally completed the conquest of the Deccan; and in the year 1347 we find direct Mahomedan authority extending as far south as the Kistna river. There is no accurate account of the mode in which the Turks raised supplies, but it was probably through the local Hindoo chiefs. The occupation was strictly a military one, and the police and revenue administration still remained for the most part in the hands of the local chiefs. There is no distinct trace of any changes of the land revenue system. The Mahomedans were well content to leave such institutions as they found them, and indeed the only information now available as to the rates of taxation peculiar to the Hindoos is that given by the Mahomedan historian Ferishta. It is asserted that the Turkish invasion had the indirect effect on landed property of forcing up the land demand exacted by the Hindoo chiefs, and so of weakening private property. In the interval between the Turkish and Moghul dynasties a number of the Hindoo kingdoms of the south were absorbed by Mahomedan kingdoms, the result of incessant petty wars. This period saw the rise of the farming system, mere outside speculators taking the place in many cases of the old native rajahs. Where the Mahomedans found it inconvenient to deal with village communities and native rajahs were not at hand, they appointed farmers of the land revenue. Such men undertook the farm as a mere temporary speculation, without acquiring any local rights, claims or ties of any kind and without interfering in any way with the existing rights of the cultivators. By the time that Acbar succeeded to the throne in 1556, the conquest of the country was sufficiently confirmed to enable him to inaugurate measures of a more detailed nature for regulating the revenue system. Acbar perfected the land settlement of his predecessor Sher Khan; and Malik Amber, an Abyssinian under the Mahomedan princes of the south, and Sivajee among the Mahrattas, carried out Acbar's principles in a large portion of the south. The farming system had naturally led to abuses on the part of the farmers and to resistance on the part of the cultivators, and Acbar was desirous of superseding it. He endeavoured to settle in all cases with village communities. With this object he surveyed and classified the lands in the villages, took the average produce of each class of land, ascertained the average price of produce for ten years past, and took one-third of the average gross produce paid in cash as the Government demand. In this way was calculated the amount to be paid by each village. At the same time a detailed statement was drawn up of the amount payable by each cultivator, for the guidance of the village authorities. The close similarity between these assessment arrangements and the assessment arrangements of the present day will be observed, and at the same time this important distinction, that village settlements have been abandoned. The assessment obtained under Acbar's system was less than former assessments, but it was anticipated that the difference would be made up by increased punctuality of payment, for the joint responsibility of the community was the condition on which the reduced rates and other advantages were accorded to the villagers. The community managed their own affairs and disposed of their own waste. Under this settlement lands exempted from revenue were registered and inquired into, and those that were improperly held were resumed. Remissions were given on the occurrence of great calamities, but not otherwise. Payment was enforced by a personal restraint and seizure of goods, but not by sale of lands. On the other hand the Government reserved the right to take land from those who would not cultivate and give it to others. The Mahomedan arrangements of this period were probably in many respects rather theoretical than practical, for a very short time afterwards the former farming system is found again re-established all over the country. (10) (D) BRITISH PERIOD. *Early Measures of the British Government.*—When the administration of Southern India fell into the hands of the British the state of things was briefly as follows. Large farms were held by large renters called Zemindars, or in a few cases by native chiefs dating from the pre-Mahomedan period; certain single villages were farmed by the headmen; and in other villages the more perfect democratic communities made joint-bargains for lump payments. The part of the country first acquired, and where the first administrative steps had to be taken, was the Northern Circars, or the tract lying on the northern extremity of the present Madras Presidency between the sea-board and the Orissa hills. As little was known by the Company's servants about the tenures or settlements of the country the detailed administration was at first left entirely in the hands of the natives, the European officials merely keeping the books. The farming system was carried out even further than before. This administration was not successful. The Circars were divided into Zemindarry lands, or land found in the hands of middlemen, and Havelly lands or lands not so found. At the outset the British put renters even into the Havelly lands. The zemindars invariably sub-rented the lands to another middleman, and the speculators or renters put in by the British into the non-Zemindarry lands had little regard for the welfare of the cultivators. In either case the actual cultivator retained a very small share of produce. This state of things lasted but a few years however, and in 1769 the Fort St. George Government took the detailed administration into its own hands and set about making improved settlements. The first step was to appoint Provincial Councils. They found the work too great, and did not effect much. The next step was the appointment by the Court of Directors of a Special Commission, or Committee of Circuit as it was called, consisting of certain members of the Madras Council, with instructions to make tours in the districts and institute inquiries into rights and interests. The instructions of the Court of Directors were conceived in a liberal and enlightened spirit, and were clearly and emphatically expressed. But this committee was also a failure. The Provincial Courts did not sufficiently support its operations, and the middlemen did their best to create impediments. No fixed system was introduced. Annual leases were granted in the first instance, then settlements for three and five years. The Havelly lands were let in some cases on the village joint-settlement system, but the settlements were imperfectly made. In 1786 a Board of Revenue was established at Madras, on the pattern of the Board already existing in Bengal, and about the same time individual Collectors took the place of the Provincial Councils in the Circars. (11) *Contemporary Measures in Bengal.*—In the same year that the Madras Government entered on the management of the Northern Circars, the Bengal Government assumed that of Bengal, Behar, and Orissa; and experiments were conducted in the latter case in very much the same way as in the former. The Bengal Government however came earlier to a decision, and when Lord Cornwallis came to India as Governor-General in 1786 the plan of the permanent settlement with the Bengal Zemindars had already been arranged. An experimental settlement of the whole of Bengal for a ten-year period was announced in 1789, and in 1792 the experiment of a permanent settlement was declared to be confirmed. (12) *Permanent Settlement in Northern Circars.*—The permanent alienation of the land revenue thus made to the Bengal middlemen had some supporters in Madras, and pressure was brought to bear on Madras by the Bengal Government to adopt the same policy in this Presidency. The Court of Directors wrote out to the same effect in 1795. The Madras Board of Revenue however reported that they were hardly prepared to recommend the perpetuation of the settlement, and that they required time for the collection of further information. In 1799 positive orders were brought out from England that Lord Cornwallis' permanent system was to be adopted throughout the Madras Presidency. On this occasion the Governor-General proclaimed his resolution to remove from office any public servant who evinced a want of zeal in fulfilling the intentions of Government. Eventually the Madras Government reported to the Supreme Government that they were possessed of materials for a permanent Zemindarry settlement in certain parts of the country. Lord Wellesley, who had by this time succeeded to the Governor-Generalship, directed the commencement of operations in the lands on the East Coast. A Special Commission was accordingly appointed, and between the year 1802 and 1804 the northern districts of Madras were permanently assessed. The lands already in the hands of Zemindars were confirmed to them in perpetuity, the assessment being fixed according to local circumstances. The Havelly lands were parcelled out into estates of a convenient size, yielding from 3,500 to 17,500 rupees annual rent, or in some cases more, and were sold as Mootahs or perpetually-settled revenue farms, to the highest auction bidder. Regulation XXV of 1802 constituted both those descriptions of landholders "proprietors," and detailed the terms on

cases to be considered will be those of: (i) Perpetual freeholds, with fixed tenure, a title-deed showing property as against Government, and no demands representing either a land-tax or the share of the produce. Cases will be (*a*) holdings under recent rules for redeeming the land-revenue, (*b*) holdings under the

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which they held their property. (13) *Settlements in the Jagheer.*—The country round Madras known as the Jagheer had been obtained from the Nawab of Arcot, partly in 1750 and partly in 1763, in return for services rendered to that State. The history of its settlement at the period now under notice is of special interest, inasmuch as it shows joint-village settlements made as late as the end of the last century, and only superseded by the forcible imposition of the permanent settlement. The Jagheer was placed in 1794 in the hands of Mr. Lionel Place, and it is to this gentleman that we are indebted for the first correct information as to landed tenures in Southern India. The villages in the Jagheer were discovered by Mr. Place to be of the class already described as democratic or Mirassy. The villages, that is to say, were corporate bodies, with an internal municipal constitution, and with the land the property of the corporation. The land was sub-divided into shares which were saleable, and still retained all the value of real property. In each village there were besides the corporate members, cultivators holding as tenants of the corporation and having on their side prescriptive rights according to ancient agreements. Again there was a third class cultivating from year to year without other privileges than that of doing so. The distinction between the shareholder and the tenant consisted in the fact that the latter could not sell his rights of occupancy, nor enjoy any of the various immunities and advantages belonging to the former as a member of the corporation. Mr. Place in making his settlements, dealt with the whole communities and not with any particular individual, and left it to the villagers to assess themselves individually. Each village chose its own representative or representatives. There is every reason to suppose that the joint village settlements of Mr. Place would have proved successful. They were not allowed however even a few years' trial. Under the orders of the Court of Directors the Jagheer was permanently settled in 1802, the lands being divided into sixty-one estates bearing an assessment of from 7,000 to 17,500 rupees, and put up to public auction as Mootahs or proprietary estates. (14) *Acquisition of other Territories.*—Whilst these measures for the settlement of the more ancient territories of the Company were in progress, new territories were being added to the Presidency, and the question of land-assessment came up again for discussion in connection with the parts of the country ceded to the English in the south. In 1792 the first war with Tippoo placed a considerable tract of country, comprising the Baramahaul, or Salem as it is now called, Dindigul and Malabar, in the hands of the English. The second war with Tippoo added Canara and Coimbatore. According to a treaty made with the Nizam of Hyderabad in 1800 the whole territory lying south of the Toongabudra and of the Kistna river after its junction with the former, was ceded in perpetuity, constituting what are now called the Ceded Districts. In 1801 all the possessions of the Nawab of Arcot in the Carnatic were made over to the British, thus carrying their possessions down to Cape Comorin. (15) *Dealings with the Poligars.*—In the land thus newly acquired the same distinction was found in the Northern Circars. That is to say, there were lands holding direct from Government, and lands holding through intermediary chiefs. The latter went in the south by the name of Poligars. They may be classed under three heads, as—1st descendants of the royal families of Vijianugger, Conjeeveram, and Madura; 2nd, the military feudal chieftains of those sovereignties who had resisted the conquest of the Mahomedans, and had either retained by force, or through indulgence and tolerance, the estates which they had enjoyed under their ancient governments; 3rd, district collectors who had contrived to elude the immediate control of the Mahomedans, and who had gradually usurped the sovereignty of the districts. These distinctions were not recognized by the Mahomedans. All the Poligars were made to pay tribute and not according to any fixed principle, but according to the power of the government to enforce it. The management of their chiefships, and the control of their subjects, were left entirely to the Poligars; but they were almost always at war with their neighbours or in revolt against the State. Whenever the exactions of the Mahomedans were considered exorbitant they were resisted, and even if the dues were eventually paid, the Poligar took the earliest opportunity of reimbursing himself and of taking revenge by an attack on the villages holding direct of the Government. In many cases the Government ryots were obliged to compromise with the invaders by agreeing to pay stipulated amount, denominated cauval or protection-money. This was, in fact, a sum paid to one Poligar to induce him to give protection against the encroachment of others. Under the systematic control of the British Government it was highly necessary to check the unbridled conduct of the Poligars, but having no knowledge of their true rights the Government were not always successful in dealing with them. Permanent settlements, which left about two-thirds or more of their estimated revenue, were made in the Chittore, Calastry, Vencatagherry and Bomrauz Pollams; and most of those chieftains or their descendants still retain their hereditary estates. In the southern part of the Tamul country there were thirty-three Poligars, for the realization of whose tribute it was found necessary to appoint a separate European Collector. These Poligars fought desperately for what they conceived to be their rights, and their reduction forms a noteworthy incident in the military history of the Presidency. Of those chiefs who had held their patrimonial estates for several generations, we find in the year 1803 thirteen only still in possession; the lands of fourteen others were under charge of the European Collector, and six were forfeited, given away, or sold. In the districts ceded by the Nizam in 1800 there were eighty Poligars. These also resisted the Government, and had to be reduced to subjection by force of arms. In 1807 they were found to have been thus disposed of: Pensioned 2, holding a Jagheer 1, residing on their estates deprived of authority 23, managing their own estates 40, expelled by force 6, in confinement 8, total 80. (16) *Settlement of Baramahaul.*—Turning to the settlement of the lands held by Poligars, the first case calling for special notice is that of the operations in Baramahaul, showing the rise of the ryotwarry system. In 1792 a commission was appointed to take charge of the Baramahaul, with Captain Read at its head. Captain Read was assisted by three junior Military officers, Macleod, Graham, and Munro, and by Mr. Hurdis, a Civilian. The military exactions of Tippoo are supposed to have disorganized the natural institutions of the country and to have impaired the efficiency of the village corporations. However this may be, it is certain that the new commission directed their attention rather to individuals than to communities. In the Tahsildars of the periods they found mere receivers of the revenue, and as the idea of dealing with village communities was not favored, there was no alternative but to deal with the individual cultivator. A system of individual settlements involved a detailed survey of fields, and this work was at once undertaken. The settlement also aimed at making moderate assessments and at guaranteeing them for a short period of years. Though the assessment was to be fixed for a period, every man was to be able to add to or throw up his lands annually. No increases were to be made in the assessment on account of improvements made by the ryot, such as digging of wells, building tanks, or converting dry land into garden or rice-fields. By 1798 the commission had completely surveyed the Baramahaul and determined the rents which should be paid on the ryotwarry system. The average assessment per acre was on the dry lands in the southern division 2 rupees, in the centre $1\frac{1}{2}$ rupees, and in the northern division 1 rupee. On wet lands, it was in the southern division 11 rupees, in the centre $6\frac{1}{2}$ and in the northern division $5\frac{1}{2}$. The average rent was little more than 3 shillings an acre on the common soils, and the average contribution of each cultivator was about 70 shillings a year. The ryotwar system, as thus propounded, was approved in theory by the Directors in England, but it was treated as an experimental measure and no practical steps were taken for confirming it. In 1799 orders were received, as already mentioned, for a permanent Zemindarry or Mootahdarry settlement throughout Madras. In pursuance of this decree the Baramahaul was divided in the years 1803, 1804, and 1805 into 228 revenue farms, which were sold by auction to the highest bidders. The numerous bankruptcies which occurred showed that there was some flaw in the system. A great many of the farmers failed in the second year after having pillaged the villages placed under them. The system could not be carried out, and a return was almost immediately made to ryotwarry. The supporters of the Zemindarry system asserted that it failed in Baramahaul only because the assessments had already been fixed too high by Read's Commission. On the side of the village-settlement system it is said that no trial was made of it. The practical result however was that ryotwarry prevailed. What is said here of the Baramahaul applies for the most part to the history of adjacent parts during the

rules for redeeming building-site quit-rents, and (c) holdings under the rules for redeeming enfranchised Inam quit-rents. (ii) Holdings of enfranchised Inamdars, with a fixed tenure, a title-deed showing property as against Government, and a quit-rent fixed for ever, calculated at a beneficial rate. (iii) Zemindarries dating

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same period, for instance of Dindigul and Coimbatore. The Ceded Districts were brought under the ryotwar system by Colonel Munro a few years later. (17) *Settlements in Malabar.*—The remainder of the Madras provinces consisted of Malabar and Canara. The ancient feudal system which existed in Malabar has already been mentioned. The country was in the hands of a race of rajahs or military leaders, and their retainers the Nayars, holding in subjection the Teeyars, and other laborers, the ancient inhabitants of the country. Instead of the distrcts in Malabar being assessed at so many thousand pagodas, they were rated at so many men liable to be called to the field. At the peace of 1792 Malabar was ceded to the British Government by Tippoo Sultan. It had been first invaded by the Mahomedans under Hyder Ally thirty-four years previously; its invasion being invited in the first place by the Palghaut Rajah to enable him to repel the attack of the Zamorin of Calicut. The landlords of Malabar did not yield readily, and in the struggles which ensued between them and the Mysore Government most of the ancient landed proprietors were either killed or expelled. In the year 1783 Ashed Beg Khan was put in by Hyder as Governor of Malabar, and his administration appears to have been more lenient and equitable than that of any of his predecessors. The principles of his assessment are said to have been as follows:—to the cultivator 5½ tenths, to the proprietor 1½ tenths, to the Government 3 tenths. Shortly after the cession to the British a committee, consisting of two Bengal and two Bombay servants, were depnted to make a settlement of the country; and their report, issued in 1793, consisting of several volumes, furnishes a full account of the district. In this province, where the landholders maintained that not only were they the proprietors of their estates, but that under the Native princes they had never paid a land-tax at all, the doctrine of State proprietary right to the land then prevailing and a claim to half the produce assumed in other places, were not likely to be acceptable. The Bengal and Bombay Commissioners found that in Malabar no such claims could be enforced, and they proposed to regulate the future demand by the assessment of Ashed Beg Khan. The first settlement, or rather realization of revenue, fell short of that amount by about 25 per cent., and an attempt to raise the rates caused an open rebellion, which lasted for some years and cost a heavy expenditure of lives and money. In 1800 the province was transferred from the Bombay to the Madras Government, and its management was made over to Major Munro, the advocate of ryotwarry, who in effect introduced the ryotwarry system there. One of the earliest of this officer's measures was a survey and assessment. These led to urgent complaints, which were unattended to, and which ended in another rebellion more violent than the former. The second rebellion was suppressed, more by conciliation than coercion, and the result was the recognition on the part of Government of the proprietary right of the landholders to their estates. Peace being restored, the chief Brahmins and landed proprietors assembled at the Collector's invitation at his office, where they selected a committee from among themselves, to arrange matters for the future administration of the province. On this occasion the landholders agreed, after allowing 50 per cent. of the produce to the cultivator, to pay to Government a sum of money estimated at 20 per cent. of the gross produce themselves, retaining 30 per cent. as rent. It was decided that the assessment should be founded on the survey and assessment of 1800. Affairs remained thus for several years, but meanwhile many complaints were made as to the inequality of the assessment, the people not being satisfied with the arrangement of 1800. In 1817 Colonel Munro, who had been the principal agent in suppressing the last rebellion and in making the last settlement, was deputed to visit and report on the condition of the province; the chief result of the visit was a reduction in the assessment. It should be mentioned that there are no compact villages in Malabar similar to those in the Carnatic. The talooks in Malabar are divided into Amshoms, which are again subdivided into Deshoms. Over each Amshom is a headman called Adigary, associated with an accountant called Menon. These officials are paid by fixed salaries. The Deshoms are presided over by honorary headmen called Mookhyastans. The houses are scattered, and there is therefore no village-site. (18) *Settlements in Canara.*—In Canara individual landed property was not so demonstrable a fact as in Malabar. The primitive constitution of the district had been changed at its conquest in the thirteenth century by the Pandyan kings, and subsequently by the kings of Vijianugger. In later times it had been partially subdued by Hyder, whose exactions continued and augmented by his successor Tippoo, are said to have impoverished the landlord class. When the British Government obtained possession, the saleable lands were few in number and limited in extent, and many of the landlords were reduced to the situation of laborers on their own estates. Still there could be no doubt with whom the Government should settle; proprietary rights were strong enough to render the question of employing middlemen or of making joint-rent village settlements quite unnecessary. Major Munro entered this district for settlement in 1800, and at once established a ryotwarry system which was not subsequently modified. The extent of land in Canara for purposes of assessment has always been measured by the amount of seed it takes to sow it. The settlement for a share of the produce has always been in the name of an individual holder, against whose name in the public accounts is entered every charge to which he is liable. This is the holder's "wurg" or account, a word which has come to mean "holding" in the revenue system. Major Munro found this method of settlement obtaining, and continued it without change. No alteration was allowed in any man's wurg except on good cause being shown. No general survey of the district was introduced, but partial surveys were instituted for the purpose of obtaining general data for assessment. A complete register, called the Beejwary register, was formed of the extent, calculated by the seed, of each holder's wurg. The only difficulty was with the amount of the assessments. The settlement of Hurry Hur Roy, Rajah of Vijianugger, made in the fourteenth century, was for a long time the standard assessment. Hurry Hur Roy took 2½ katties of seed as the basis of the calculation, and assuming the proportion between seed and gross produce to be that of 1 to 12, he apportioned the gross produce thus—to the landlord 7½ katties, to the cultivator 15 katties, to the Government 7½ katties. The Bednore Government left this assessment as they found it till 1618, when the Government share was increased by 50 per cent. The total jummah of Canara at the close of the Bednore Government amounted to pagodas 320,827. Hyder increased this to pagodas 533,202. Colonel Munro's settlement in 1800 amounted to pagodas 465,148; of this pagodas 284,603 was composed of the ancient land-tax or Shist, and pagodas 180,545 stood for extra assessments imposed by the Bednore and Mysore Governments, the extra imposts of the latter being called Shaumil. The inequalities caused by the new British assessment were found in the course of a few years to be intolerable, and in 1817 a thorough investigation was instituted, ending eventually in the so-called Tharow assessment in 1819. The Tharow was a maximum assessment which the Collector could not exceed of his own authority, and was based on a detailed investigation of the collections on particular estates. The Tharow assessment was considered a moderate one when it was made, but it was a considerable time before the country attained even that standard, and constant remissions were necessary. The total amount of the Tharow assessment for the entire province of Canara was Rupees 15,24,879 on 34,216 ryots as against Rupees 16,72,607 of the ancient Beriz comprising both Shist and Shaumil. Canara has since been divided into two separate divisions, the southern division only remaining with Madras, the northern division going to Bombay. The village arrangements in South Canara are somewhat similar to those in Malabar, each wurg having its house situated upon it. The headmen of villages are called Potails, and the curnums, of whom there is one for each group of villages termed Maganny or Taraf, are called Shanbogues. (19) *Trial of Village-rent System.*—In the various experiments which were made during the first twenty years of the century in the mode of settlement for the land-revenue, the Zemindarry and Ryotwarry systems played the most important. The village joint-rent system was not, however, entirely overlooked. In 1808 this method was given a general trial in several districts on the authority of the Court of Directors. The Madras Board of Revenue were distinctly in favor of the system, and had not Colonel Munro been so much opposed to it, it is possible that it might have had a different fate. The plan was tried at first for a term of three years. The result was not entirely satisfactory. In many parts the head inhabitants, conceiving the assessment excessive and finding them-

from earlier than 1802, with fixed tenure, a sunnud showing proprietorship as against Government, and fixed land dues, with obligation for the Zemindar to enter into written engagements with his tenants, and subject to the law of primogeniture as to succession. (iv) Proprietary estates, that is to say zemindarries created under the authority of the Regulations of 1802, with the same conditions, but no law of primogeniture. (v) The so called Unsettled Polliems without a sunnud, but with land demand fixed for ever. (vi) Holdings of ryots under Ryotwarry, with fixed tenure, but without a sunnud expressly declaring proprietorship, and with a demand varying under certain special circumstances. (vii) Inam holdings, given by Government as emolument or in charity, with no title-deed showing unconditional property, with a tenure dependent on the fulfilment of certain conditions the decision as to which rests with the Government, and with a demand calculated as under Ryotwarry but at highly favorable rates, the difference between these and normal rates constituting the emolument. (viii) Land held on special conditions as (*a*) on cowles, and (*b*) under the tope rules. (ix) Unassigned lands still on the hands of Government, but to which, as part of village areas, certain persons have a preferential claim when application is made for their occupation. (x) Unassigned lands still on the hands of Government without any such restriction.[2]

119. Perpetual Freeholds.—Absolute and perpetual freeholds have not existed in this Presidency until quite recently, and can now be acquired only by taking the benefit of the rules for redeeming the land-revenue, building-site quit-rents, and enfranchised Inam quit-rents. In regard to the first and second of these modes of redemption it must be observed that inasmuch as land-tax is the main constituent of public revenue it is not allowed to be redeemed universally. It is only allowed in the case of lands occupied for building purposes or intended for gardens and plantations, of lands on the Neilgherries and the Pulney and Shevaroy hills, and of the coffee lands in the Wynaud. In all these cases proprietors are allowed to redeem their land-tax, the rate of redemption being twenty-five times the sum annually paid on the land as assessment or quit-rent. The cost of survey and demarcation is borne by the person who redeems the assessment. In zemindarries the Zemindar alone is given the right to redeem the land-revenue. In the

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selves obliged to ask for remissions annually, refused to rent their villages. Speculators then came forward and out-bid each other, so that the villages were rented at a sum beyond what they could yield, and the contractors failed. Still the Government were satisfied on the whole, and in many cases made a further ten-year settlement on the same principle. It was even proposed by some to make a perpetual village settlement. The ten-years' settlement was not approved by the Court of Directors, but their objections arrived too late to be acted on. A visit to England, however, made by Colonel Munro had probably not been without its effect upon the opinions of the Court of Directors and the Board of Control; and towards the close of 1817 instructions were received at Madras for the abolition of the village system, and the confirmation in all practicable cases of the plan of ryotwar settlement with individual holders. It was alleged that the village system had been tried and had failed. The revenue authorities declared that it had not been subjected to a fair trial, and that it had not failed. They alleged too that the Home authorities had decided hastily on insufficient evidence. "The judgment," the Board of Revenue wrote, "which has been pronounced in England against the village system, is founded on a very partial and unfavorable view of its results; for it does not appear that authorities at home had, at the time when that judgment was passed, any information before them respecting any other portion of it than its commencement, the triennial settlement." And they urged that the result of that settlement was no test of the success or failure of the system, inasmuch as the lands had been subjected to an over-assessment, "founded upon the fallacious data of the Ryotwar collections." (20) *Final Establishment of ryotwarry.*—The Ryotwar system was, however by this time in favor at home, and orders were sent out for its reintroduction, in all possible cases, under certain modifications prescribed by the Court. At this period, in Ganjam, Vizagapatam, Rajahmundry, Masulipatam, Goontoor, Salem, Chingleput, the Cuddalore district, and the Western, Southern, and Chittore Polliems, the Permanent Zemindarry system prevailed; in the Ceded Districts, Nellore, the two divisions of Arcot, Pulnaud, Trichinopoly, Tinnevelly, and Tanjore, the village system had been introduced; and the ryotwar system was fully established only in Malabar, Canara, Coimbatore, Madura, and Dindigul. The orders were carried out; and all the necessary preliminaries having been gone through, the village leases having expired, many of the new Zemindarries or Mootahs having lapsed or been bought in, the improved ryotwar system was declared to be established in Madras. Colonel Munro himself, who had been appointed to the chief place in the Government, took his seat in time to preside over the act of final establishment in the spring of 1820. Since 1820 there has been a periodic revision of the rates of assessment in ryotwarry lands; a Special Commission has dealt with the whole question of inam or rent-free lands; and various legal enactments have been passed for the protection of various landed interests or for the realization of the Government dues. In the broad policy of Government however as to tenures and settlements there has been no change.

[2] Tenures in other Parts of India.—In Bengal, a permanent settlement was made by Lord Cornwallis in 1793 which converted revenue-collectors into zemindars, the actual cultivators becoming tenants. Bombay has a settlement tenure similar to that of Madras, though not so universally spread. In the North-West Provinces, the Punjaub, and the Central Provinces, the village is the unit, and not the holding or field. The assessment is levied upon the owners of the village, who may be either landlords, proprietors, or peasant proprietors or a village community. The settlement in these cases records minute details of all rights over the village lands. This settlement is also good for thirty years. In Oudh, after the mutiny, the talookdars, or local potentates, were for the most part guaranteed in the possession of their estates, with even greater power than the zemindars of Bengal. In Assam a system akin to the ryotwarry, but simple, prevails. In British Burmah also, where, as in Assam, cultivation is still backward, the system is simple and the taxation light.

case of ryotwarry lands the proprietor holding directly from Government has alone the right. Applications for the redemption of land-revenue are disposed of by Collectors subject to an appeal to the Board of Revenue. On payment of the redemption money in full, with the cost of survey and demarcation, the party redeeming the assessment is furnished with a title-deed in a certain prescribed form. The third mode of redemption shown above introduces the question of the Inam tenures of this Presidency, but as these are described in detail under the head "Inam Commission," it is only necessary here to mention that Inamdars holding lands enfranchised from service or from Government resumption, but subject nevertheless to a quit-rent, may redeem that quit-rent in perpetuity at twenty years' purchase. The class of holders mentioned in this paragraph have of course unlimited powers of alienating, devising, or disposing of their land. It will be observed that the freehold is absolute against that demand of the Government only which represents the Government right to share the produce, and gives no immunity from other Government demands, such as for artificial irrigation, education, or such matters; in all of which cases the land may be subjected to separate cesses or demands. The land also will always be liable to attachment, in the same way as any other land, in the event of its becoming obnoxious to any legal penalty which authorizes its attachment or sale. The redemption in no way affects sub-tenures, right of occupancy, or other similar rights; and the freedom conferred is absolute only as against Government.

120. Zemindarries.—In the case of zemindarries the land has been perpetually assigned by the Government, with a proprietary title, at any rate as against themselves. The land-dues however still remain as a charge on the land. The land-dues here are permanently paid, and may be taken therefore to be no longer a share of the produce but a tax. Zemindars hold under a "Sunnud i milkeut istimrar" and give in exchange a corresponding cabooleat or acceptance. Zemindars are at liberty to transfer, without the previous consent of Government, their proprietary right in the whole or part, however small, of their zemindarries to any person they please by sale, gift, or otherwise; and such transfers are to be held valid and to be respected by the courts and officers of Government, provided they are not repugnant to the Mahomedan or Hindoo law or to the regulations of the British Government. In order to be valid against Government, and in order to liberate the transferer from his liability to Government dues, such transactions must be first registered in the Collector's office, and where there is a sub-division, the peshcush on the sub-divided portion must be adjusted by the Collector. The Government do not regulate the succession to zemindarries. They sometimes interfere to recognize a primâ facie claimant in cases of demise and pending decision of the law courts, but nothing more. The Zemindar is in most cases the owner of all waste land, or land not held by cultivators, within his estate, and he has certain powers of selling up cultivators for default of payment of land-tax which will be mentioned hereafter. The land being "permanently settled," that is to say, the land-revenue on it being fixed for ever, no increase of revenue accrues to the State as more and more land is brought under cultivation. Since the land-revenue on these estates was fixed their value has doubled, but the benefit goes to the Zemindar alone. On the other hand the Zemindar's demand does not protect him from cesses for matters other than land-revenue proper. Zemindars have to keep up the regular establishment of village curnums or accountants; they appoint these officials, but a civil court alone can remove them. About one-fifth of the whole Presidency is under zemindarry. The obligations laid upon Zemindars in their dealings with their tenants will be described hereafter in treating of tenancy. The principal of the ancient zemindarries found by the British Government on its assumption of the country may be said to have been Vizianagram in the Vizagapatam district, Pittapore in the Godavery, Vencatagherry in the Nellore district, and Ramnaud and Shivagunga in the Madura district; but there were numerous other large estates of the same sort, especially in the north. These zemindarries differ at the present moment from those subsequently created under Regulation XXV of 1802 in two respects only. In cases of succession by death the law of primogeniture obtains, the eldest son succeeding and the remainder of the family being entitled to no more than maintenance; and the Zemindar cannot

encumber or alienate the estate beyond his own lifetime. The private estates conferred under Regulation XXV of 1802 go by various names, as proprietary estates, zemindarries, mootahs, &c. They must not be confounded with jagheers, shrotriems, and other classes of inam holdings; mere assignments of land-revenue already assessed by Government with no question of the Inamdars either farming the revenue or being proprietors of the land, and having no connection with the regulation just named. In the case of all estates which are not ancient zemindarries, the ordinary Hindoo rule of inheritance prevails. They are sub-divided and alienated freely like any other form of real property. The Government have no concern with regard to the succession. It is evident that from their constitution these estates are doomed to gradual dismemberment. A proposal has been made to pass an Act for this Presidency similar to the Scinde Encumbered Estates Act, India No. XX of 1881, enabling the Government to manage estates for no other reason than their indebtedness; but the order has not been approved, a case not having been made out by the Zemindars for special protection. Vol. II, App. XLVII shows the names of all the Zemindars in the Presidency, with the amount of their peshcush.

121. Inams enfranchised, but unredeemed.—Inamdars who have accepted the terms of enfranchisement, but have not redeemed the quit-rent payable on their lands, call for notice here. They pay quit-rent, but their tenure, as regards security of occupation without conditions, and fixity of land demand, is superior to that of any class of landholders other than those who have redeemed. They have full powers of alienation, while they are protected from the periodic revision of the ryotwarry rates contemplated by the Revenue Settlement Department.

122. Poligar Estates.—Poligars hold in the southern and western portions of the Madras Presidency very much the same position as the Zemindars of the northern districts. Originally poligars were the descendants of officers of police and revenue agents of the Hindoo sovereigns, who advanced themselves to the position of chiefs possessing military forces and strongholds. Gradually they reached the condition of tributary feudatories and proprietors of lands. Their historical relations with the British Government have already been described. All the polliems have been assessed. Some have been granted permanent settlement under Regulation XXV of 1802, with sunnuds. The polliems for which no sunnuds have been granted are called unsettled polliems. Practically there is no difference between the settled and unsettled polliems. The assessment is fixed and permanent in both cases and the succession is governed under the same principles. It was once considered that the holder of an unsettled polliem had but a life interest in the polliem, and that it was open to Government to dispose of the polliem as they pleased on his death, but this view was not accepted by the Privy Council in a case recently decided by them. The Government have directed the issue of permanent sunnuds to the holders of all such unsettled polliems as may be willing to accept them on the condition of continuing the tribute which they have been paying for upwards of fifty years. Most of the poligars have accepted the sunnuds, but there are a few to whom they have not yet been issued. These latter then have a demand perpetually settled, but no permanent title, and form a distinct class in the terms of the classification given above. There were formerly also a few estates called polliems held for real or nominal police services to be rendered to Government in the districts of Nellore, North Arcot, and South Arcot. These were settled by the Inam Commissioner and enfranchised as inams.

123. Ryotwarry Tenure.—The ryotwarry system of holding under Government has now been the principal tenure of this Presidency for more than half a century. It is difficult to define it in one or two words. Even the Bombay Revenue Code, which is the law governing the similar tenure in that Presidency, avoids a definition of the right, and merely describes certain of its incidents, attributes and limitations. In Madras there is no law on the subject, Regulation XXV of 1802 having never been held to be applicable to ryotwarry. A difficulty of definition however arises from no other cause than the inapplicability to oriental tenures of the phraseology of European landed property. The terms of the engagement can easily be enumerated, and these terms are sufficiently well understood and

practically acted on by the persons concerned. No serious difficulty has as yet arisen owing to any difference of opinion as to the interpretation of the ryotwarry contract. In ryotwarry tenure the Government deals with an individual, who is technically assumed to be acting on his own account and not to be a middleman. As he is usually a very small holder, this is often actually the case. The Government allow a ryot who has once acquired possession to remain in possession as long as he pays the Government dues. Even when he becomes a defaulter, they merely sell such portion of his land as is sufficient to cover the amount due, and under cover of a special law for so doing; they do not dispossess him by any form of eviction other than that provided by the legislature under Madras Act II of 1864. If a ryot without authorization takes possession of waste assessed land the Government do not nevertheless evict him. In the particular case of a ryot taking possession of unassessed waste land, the Government reserve the right of putting on a prohibitory assessment; for here the land is very probably land which it is undesirable to cultivate. It is understood that in both these cases the Bombay Law allows eviction. The Government concede to the ryot complete power to alienate the land by lease, mortgage, or sale, and only stipulate that, unless he formally registers such alienation with the Collector, he will remain liable for all Government dues on the land however accruing. The trees on puttah lands, however valuable, are absolutely the property of the puttahdars, and nothing is charged for them except in the case of palmyras in the district of Tinnevelly. In Tinnevelly the tree-tax can be redeemed by the payment of twenty years' assessment. The most important item in the yearly demand, namely the normal land-tax, is fixed in advance and is liable to revision according to present arrangements only once in every thirty years from time of first settlement. Even when a revision takes place it has been guaranteed that no increase shall take place on account of improvements made by the cultivator himself. The normal rate of land-tax is fixed, but every year numerous questions arise of concessions made or extra demands for extra benefits conferred; the settlement of these questions takes place at the annual jummahbundy. Moreover, the ryot has the power of yearly increasing, decreasing, or entirely abandoning his holdings; this has also to be attended to at the jummahbundy. The law courts have recently declined to recognize the proprietary rights evidenced by the power to create an easement against Government, in ryotwarry holders not claiming as hereditary mirassidars and newly put in by the British Government; but this is believed to be a new doctrine. The ryotwarry system has taken the place in most localities of the Mahomedan system of renting whole villages to a single individual and leaving it to him to sub-rent to the villagers. It is popular with the people, and creates an elastic revenue which expands as increasing population and prosperity cause more land to be taken up. On the other hand it must be observed that the absence of middlemen causes a most serious amount of detailed labour on the part of the Government.

124. Though the State has a right to fix the land-tax at its discretion, it does so in accordance with certain principles. In ryotwarry it is held that, with a few exceptions, its proper amount is half the value of the net produce of the land after the expenses of cultivation have been deducted from the gross produce. At the commencement of the ryotwarry settlement the tax was determined in a somewhat rough-and-ready manner, which left many anomalies and inequalities to be afterwards rectified. The worst of these have been amended from time to time, and at the present time there is a Survey Department which determines the exact area of villages and sub-divisions of villages (khandams) and fields, and a Settlement Department which calculates the rate of assessment for each in accordance with the "half-net" principle. The calculation of produce and assessments thus revised are to be in force for thirty years. In Godavery, Kistna, and part of Kurnool an important deviation has been allowed from the "half-net" principle in the case of land irrigated by channels led from the great anicuts across the Godavery, Kistna and Toongabudra. The land-tax there has been calculated as if the land were not irrigated, and the irrigation is charged for at a uniform rate per acre. Further information regarding the Survey and Settlement Departments which

underlie the whole ryotwarry system will be found further on under the special sections allotted to those subjects.

125. It has already been mentioned that the Government have in times past furnished a title-deed setting out what is there called proprietary right in the case of all Zemindars either ancient or created within this century, and that they still continue to furnish such title-deeds to persons who redeem the land dues in perpetuity by a lump sum payment. No such title-deed, however, is given to ryots holding under ryotwarry, and they are left to make their own arrangements as to creating a title when they dispose of lands by private transaction. When first a ryot is put in possession of land he is furnished with a document called a puttah. But this is liable to revision at each annual jummahbundy, and is merely a document to show that, according to the Government register, the ryot for that year holds, without relinquishment, such and such survey fields, or parts of them, and that the Government looks to that ryot and no other for the Government land-dues until further notice. As long as the ryot actually holds the land according to the terms of the register, it is of service to him, as showing that the Government will not attempt to put any one else in possession and will not exercise any powers of attachment or resumption of the land without first dealing with him; and the attachment to landed property is a sufficient motive to make this a very important consideration. In the law courts however a puttah is very weak evidence to prove possession, inasmuch as there is nothing to show that the arrangement therein indicated has not been superseded by some subsequent private transaction, and even at the outset the Revenue officials in issuing a puttah do not attempt to do more than give it to the person who has best 'primâ facie' claim to possession. Regulation XXVI of 1802, section 3, declares that the court shall not recognize transfers of land other than those shown in the register of landed property, and the register coincides with the puttahs issued; but this provision is held to make unregistered transfers invalid only as against Government, and with reference to the Government dues. The puttah in fact, as has lately been expressed by legal authority, does not assume to be any muniment of title, a subject on which the Government is silent; but is only a document indicating certain fiscal arrangements between the Government and the individual mentioned in it. The puttah given to the ryot is his surety against Government. No document of acceptance is received by Government from the ryot, as it is considered unnecessary, the law making the land and its produce liable to attachment for arrears in the land-dues in preference to any other claim and whoever be in occupation. A register however called a chittah, showing the settlement of each individual, is maintained in each village; ryots who are able to read are allowed to examine this register and can sign their names in it if they wish.

126. Occasions will often arise when persons wish to transfer their ryotwarry puttahs to others. This the Government are always ready to do on production of agreements from both persons interested. In such cases the persons concerned prefer a joint application in the office of the Tahsildar of the talook in which the land is situated. The Tahsildar publishes a notice thirty days in advance in the villages concerned, and if no objections are raised, he himself orders the transfer. A puttah is then issued in the name of the transferee at the next jummahbundy. Meanwhile, as a rule, the new holder gets possession. In cases where transfer is sought under a decree from a Civil Court sanctioning the transfer, consent of the parties is of course unnecessary, nor is notice given to villagers. Looking to the fact that a transferee cannot obtain a puttah except the transferer is willing to enter with him into a joint agreement to that effect, it has been suggested that a law should be passed for the protection of the transferee making registration of transfers in the Collector's register compulsory. It has not hitherto been thought, however, that the loss of the puttah is of sufficient importance to the transferee to make it necessary to legislate. In the event of the demise of a person whose name is entered in the Government register, the Government themselves take steps to ascertain who is the proper successor. On the occasion of each demise the village curnum reports to the Tahsildar, and the Tahsildar reports to the Collector. In one or other of these reports, or in both of them, the name is given of the person or persons who

appear 'primâ facie' to have the best claims to succeed, under the Hindoo or Mahomedan law of succession as the case may be. The Collector, when satisfied, causes a puttah to be issued in the name of the presumptive heir or heirs. The transfer of puttahs is carried out as a departmental arrangement and under no legislative enactment. The most ordinary cases are where the son or sons succeed the father. Among Hindoos property vesting in a person descends in the following order:—sons, sons' sons, sons' grandsons, wife, daughters, mother, father, brother, brothers' sons, paternal grandmother, paternal grandfather, paternal great-grandfather, his sons, his sons' sons, the other ascending ancestors, and their sons and sons' sons in like order. The above is the ordinary line of succession. But there are various complications of law; for instance if an undivided member of a family dies, leaving only a widow and a brother, the latter succeeds in preference to the former. The Mahomedan law of succession is still more complicated. But the Revenue authorities do not strictly go into the details of law in issuing puttahs to the heirs of the deceased individuals. The puttah is issued to the 'primâ facie' heir or heirs, leaving the question of possession and other rights to be decided in Civil Courts. But when courts pass their decrees in regard to succession, puttahs are issued by the Revenue authorities according to these decisions. The Hindoo law of succession favours partition and creates very numerous sub-divisions in the puttahs.

127. In both of the cases of transfer just named, whether that is to say the transfer is effected before or after death, occasions will arise when either two parties wish to be entered jointly and severally in a joint puttah, or a person holding a puttah desires to split it up and transfer part of it. The former case will arise occasionally when partition is inconvenient, as for instance when the heirs to a single deceased holder are joint widows; the State does not encourage joint puttahs, but it raises no absolute objection if it suits the parties. The Government will not separate a puttah once made joint without the consent of all the parties, even though one asserts a grievance. The latter case, where it is sought to sub-divide a puttah, is of course of constant occurrence. There were formerly certain regulations checking the splitting up of blocks or fields marked off by the Pymaish or Survey Department; but these were abolished in 1875, and there is now no limit to the smallness of a holding for which a Government puttah will be issued. Inquiry is being made as to whether this entails inconvenience and whether a limit is desirable.

128. Assessed land will be vacant under various circumstances, as for instance, owing to its having never been occupied, or to its having been just thrown up by a ryot, or to its having lapsed to Government on a demise or at a revenue sale. When there are assessed lands in a village thus unoccupied, it is open to any individual, whether resident of the village or not, to apply for the land to be held by him under the terms of the ryotwarry tenure. All applications by strangers are invariably communicated to the mirassidars and other resident villagers so that they may have the refusal, and it is only when the mirassidars and residents do not agree to take up the lands that they are given to strangers. When there are two or more applicants for the same land, preference is given to the ryot whose land adjoins, and when there is no such claimant, to the first among the applicants who is a ryot of the village in preference to a stranger. But no preferential claim on the ground of possession of the adjoining land, or of the residence in the village, is admitted in favour of a ryot by whose relinquishment the land becomes unoccupied and available for allotment. In all cases durkhasts for whole survey fields have preference over durkhasts for portions only. . The applications are in the first instance disposed of by the Tahsildar. From his decision an appeal lies to the Divisional Officer if made within thirty days, and from his decision again an appeal can be made to the Collector within thirty days. The Collector's decision is usually final, but where a Collector has passed the decision on appeal from a Tahsildar within his own division a special appeal lies to the Board of Revenue if made within forty days.

129. Ryots are allowed to relinquish their lands provided they apply for permission to relinquish sufficiently early in the season to enable others to commence cultivation upon them. The dates up to which ryots are permitted to relinquish

their lands in the several districts are shown below.[3] The dates vary so as to follow those of the first rains in each district. The lands relinquished must be accessible to others, otherwise the relinquishment is not accepted. For instance a ryot would not be permitted to retain all the fields in his holding except the centre one, as this would not be an eligible holding for another ryot.

130. The tenures and settlements as between Government and the payer of the land-dues are in Malabar and Canara professedly a mere form of ryotwarry. The special arrangements which exist in those districts between the landlord and his tenants do not as a rule affect the Government, and in dealing with the occupant the Government ignore as much as possible the existence of middlemen, or of interests other than their own. Sometimes, for instance, the Government puttahdar in Malabar is a jenmy landholder with his tenants under him, and sometimes he is a pauttomcar tenant owing his separate rent to a superior jenmy; but into this the Government do not go. Again in Canara, though the landlord's right or mooly-huk sometimes falls to Government by escheat, the Government are in the habit of taking steps for divesting themselves of it and of handing it over to the occupying ryot. In some respects, however, there are considerable differences between this sort of ryotwarry settlement and the ordinary ryotwarry settlement, even from the Government point of view. For instance there is no detailed survey in these districts, and the settlements are made not on fields but on holdings. Again, there are doubts how much waste lands are at the disposal of Government, a considerable portion being at present claimed as private property. Remissions again are never needed, owing to the certainty of the seasons and the lightness of the assessment. The ancient character of the proprietary rights enjoyed by West Coast landlords has already been seen from the historical sketch of land tenures. They are to the individual what the mirassy rights of the Eastern Coast are to the community.

131. OLOOGOO, MOTTAFYSAL, AND AMAUNY.—The Oloogoo, Mottafysal, and Amauny systems of settlement involve questions of demand rather than of tenure. In all cases where the Government apply them, they apply them to the individual ryot, and they are therefore different forms of ryotwarry. Details of the demand will be given hereafter.

132. LANDS HELD ON COWLES, &c.—A cowle is an agreement to hand over land without payment for a certain period, or on payment for a certain period of a diminished assessment gradually rising to full assessment. When the period is finished the holder becomes a ryotwarry holder, but not before. In the meanwhile he is subject to the terms of the contract contained in the cowle. The cowle tenure is usually granted to induce cultivators to break up unpromising waste lands. Though much used between Zemindars, Inamdars, &c., and their tenants, cowles are not in frequent use by Government. Lands held under the tope rules hereafter to be described fall in reality, though not nominally, under this class of tenure. If the Government have good grounds under the contract for dispossessing the cowledar, they can do so and re-enter on the land. It will be noticed that this right is never claimed in the case of an ordinary Government ryot.

133. ORDINARY INAM TENURES OF LAND.—When the State has given up its right to the land-tax, or a portion of it, in favour of an individual or an institution, or to remunerate persons for performing certain duties, the grant is termed an inam or manyam. A very large number of such grants was made by former governments, and it was a condition of most of them that they could not be alienated without the consent of the State, that they would escheat to Government on the failure of male heirs in the direct line, and that they might be cancelled on the occurrence of

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[3] DATES OF RELINQUISHMENT IN RYOTWARRY.

Districts	Date
South Canara. Malabar.	30th April of the fusly preceding for which relinquishment is made.
Ganjam. Vizagapatam. Godavery. Kistna.	31st May of the fusly preceding for which relinquishment is made.
Bellary. Cuddapah. Kurnool. Nellore. North Arcot. Salem. Coimbatore.	15th July of the fusly for which relinquishment is made.
Chingleput. South Arcot. Trichinopoly. Tanjore. Madura. Tinnevelly.	15th August of the fusly for which relinquishment is made.

any lapse. In some cases the grants were to be resumed after a certain number of lives, that is to say after a certain number of successions by inheritance. Other inams depended on the execution of certain religious observances, or the performance of certain State services. In 1858 a commission was established to examine the titles of the possessors of inams, and to enfranchise them if they wished by commuting for a moderate quit-rent the right of Government to prevent alienation, to resume, or to demand service. There are still certain inam lands the holders of which have not accepted the terms of enfranchisement offered by the Inam Commission. These remain on the old and very restricted tenure. They are subject to favourably calculated dues on account of land-tax, but on the other hand they have a tenure very inferior to that of enfranchised inamdars or even to that of ordinary ryotwarry holders. They cannot alienate their lands. Succession is prescribed as above shown in a definite way. They hold only on the fulfilment of certain conditions, and Government claims an absolute right to adjudicate as to the proper fulfilment of those conditions. In the case of Village Service Inams the tenure may almost be said to be at the pleasure of Government. Full particulars regarding inams will be given under the heading of Inam Commission.

134. Farming the Revenue.—The principle of farming out the land-revenue in certain localities for a certain period has almost disappeared. Some rents, however, still remain. Thus in the Vizagapatam district the Honjeram estate and Palcondah talook are rented out on a lease of years to a mercantile firm. Reckoning these talooks and detached villages together there are throughout the Presidency 331 villages rented out, 87 in Vizagapatam, 231 in the Godavery, 12 in Chingleput, and 1 in North Arcot. A large number of these are hill-villages not surveyed and not touched by the Settlement Department. The old joint-rent system, where the villagers themselves took up the lease and were jointly and severally responsible, has now entirely disappeared. The last trace of it existed a few years ago in the hilly parts of the Godavery.

135. Mirassy Rights.—The rights which go by the name of mirassy must be mentioned here. They are not sufficiently strong to be classed as tenures or rights against Government, such as zemindarry or ryotwarry; but they are sometimes more than the mere preferential right to occupy new land hereafter to be mentioned, and they are recognized by the Government. The origin of mirassy rights in the Tamul country has been already described in the historical sketch of Land Tenures. Nearly all that remains now of the special rights of the communal oligarchies is the claim by certain hereditary mirassidars in the Chingleput district to fees upon waste which may hereafter be brought under cultivation, and upon lands now occupied by non-mirassidars which may hereafter be thrown up and again re-occupied under the Durkhast rules. These fees, otherwise called Swatantrams, were formerly taken from the gross produce before the division of the crop, and were then paid to the mirassidars both by the ryots and by the Government. They are now made payable entirely by the ryots, liberal allowance having been made with these on arriving at the money rates of assessment charged on their lands. The Swatantram payable by the ryot under these circumstances is a yearly sum of two annas in each rupee of the Government assessment; this amount being held to represent the old average rate of 3 per cent. of the gross produce of the year. These fees are recorded by the Government in the land-revenue registers, and their collection is left to the mirassidars themselves. The total amount in the Chingleput district is very small, but the right is tenaciously held to, and represents what was in former days a highly important institution. There are some mirassy Swatantrams in Tinnevelly, and possibly also in other districts, but Government has taken no steps to recognize them. It should be mentioned that the word mirassy means nothing beyond hereditary right, and that it is often applied to other rights besides the special right now under mention; it is applied, for instance, in the north to hereditary rights to village offices.

136. Unassigned Lands.—The unassigned land still in the possession of the State consists of all land which is not included in any zemindarry, ryots' holding, or other land already given out by Government for occupation. If it lies, however, within the boundaries of a village, certain prescriptive rights are

conceded to the villagers of that particular village, probably as a relic of the old village communal system, in the way of preferential claim to occupy; and this distinguishes the case for the purposes of the present classification from that of unassigned land not so situated. Unassigned land within a village will be either of the assessed class or the unassessed class. The mode in which assessed lands are applied for and taken up in the first instance has already been described. The unassessed land of a village is also at the disposal of the Government acting in trust for the interests of the village community. Subject to the instructions of the Government officers, certain portions are reserved for the gratuitous and communal use of the villagers, as the tanks, streets, channels, threshing-floor, burial-grounds, cattle-stand, &c.; while in all cases except in the town of Madras and some places on the West Coast, a house-site, and a backyard with permission to cultivate garden produce in it, are provided gratuitously for each family. The addition to or subtraction from the area of village-site is provided for by fixed rules. The unassessed waste lands of a village, which are not yet assigned, and which are not reserved for these special purposes, are offered for sale in convenient lots free of assessment, and subject only to local taxes. In Tanjore and Madras there are no such lands to be sold, and on the Neilgherry and Shevaroy Hills and in the Wynaud the arrangements in nearly all cases fall under the head next to be mentioned. The prices shown below [4] are the upset prices fixed for each district and lands are made over to the highest bidder above that price. No lot within a village is allowed to exceed 10 acres except under orders of Government, but one person may bid for contiguous lots. The lots are as far as practicable in parallelograms. In selling the land the existing and customary rights of Government, of other proprietors, and of the public in existing roads and paths, and in streams running through or bounding the lands are carefully reserved, and when the sale is completed and money paid, a formally drawn up title-deed is granted to the purchaser by Government. The land is surveyed and demarcated before the sale, and its cost is borne out of the sale-money if there be any purchaser, and if there be no purchaser by the first applicant at whose instance the survey has been undertaken. The first applicant has in all cases to make a deposit covering the cost of survey. Due notice is given to the public before sale, and any claims put forward are disposed of on their merits. The Government can of course alienate the unassessed land, if they wish, by puttah or on cowle in the ordinary way, instead of selling the land in the manner just described. This is indeed in practice almost the only course as far as land in the plains is concerned. The rules apply virtually only to hilly tracts, there being no stretches of unassessed waste in the plains.

[4] UPSET PRICES FOR UNASSIGNED LAND WITHIN VILLAGES.

Districts.	Forest land.	Open land.
Arcot, North	5 rupees an acre ...	2½ rupees an acre.
Arcot, South	5 do. ...	2½ do.
Canara, South, Hill ranges	10 do. ...	5 do.
Do. plains	5 do. ...	2½ do.
Coimbatore (except Neilgherries) ...	5 do. ...	2½ do.
Cuddapah	5 do. ...	2½ rupees.
Ganjam	2½ do. ...	5 rupees an acre.
Godavery (*a*) ... ... / Kistna	2½ do. ...	For all kinds.
Kurnool	10 for black cotton ...	5 rupees for all qualities of soil.
Madura, Pulneys	10 rupees an acre ...	5 rupees an acre.
Do. in the plains	5 do. ...	2½ do.
Malabar	5 per acre for Ponam land.	10 rupees per acre for the more open and level lands, exclusive of Wynaud.
Nellore	5 rupees an acre ...	2½ rupees per acre.
Nullamullays	5 do. ...	......
Salem (except Shevaroys)	5 do. ...	5 rupees per acre.
Tinnevelly, Hill ranges	10 do. ...	5 do.
Do. in the plains, all kinds ...	2½ do. ...	......
Trichinopoly	5 do. ...	2½ rupees per acre.
Vizagapatam	5 do. ...	For all kinds.

(*a*) The delta lands are excepted from the ordinary operation of the rules.

137. Unassigned land outside the limits of any village as defined by custom or the Survey Department is absolutely at the disposal of Government. Such portions of land are very limited on the plains, which are fully occupied by village communities, but they abound on the hill ranges where the indigenous tribes have established only a very partial occupation, and where general occupation is only just springing up. The alienation of lands lying outside villages will fall in a few cases under the rules described in the last paragraph. On the Neilgherries and Shevaroys, and in the Wynaud, however, there is a special provision that there shall be no upset price except the cost of demarcation and survey, and that the lands shall be liable to assessment. Thus forest lands are free of assessment for five years on the Neilgherries and for three years in the Wynaud, after which they are assessed at Rupees 2 per acre. Grass-land is liable to an assessment of 8 annas per acre from the date of appropriation. On the Shevaroy Hills all lands are liable to a uniform rate of 1 rupee per acre from the date they are taken up. In any of these cases the annual assessment may be redeemed at 25 years' purchase as already mentioned.

138. Tenures other than those under Government.—In a ryotwarry country the most important considerations connected with land tenures are those which concern the relations of Government with persons holding immediately from it. The system of tenancy under such land-holders is however fully developed, registered ryots sub-letting their lands and living on the difference. The system is even a matter in which Government is concerned, the interference of the Revenue officials between land-holder and tenant being often required under the law. In the districts on the East Coast lands are rented out by the land-holders either for a fixed annual payment in money, or as 'metayers' for a share in the produce, which is generally half. Ordinarily dry and garden lands are rented for money and irrigated lands for a share in the produce. Except in large zemindarries, where rights have grown up from long possession, private tenants as a rule are tenants at will, and the leases are from year to year. Legislation is under contemplation for the further definition and protection of the rights of those tenants who hold under zemindars, poligars, shrotriemdars, inamdars, or farmers of land revenue, such landlords being regarded as practically in the same position as Government, and their tenants being held to be entitled under conditions to the same rights as Government ryots. The basis of the proposed legislation is to throw on the landlord the onus of proving a right to evict or enhance.

139. On the West Coast tenancies are of a special nature, being more permanent than elsewhere, and the lands being generally leased out for a number of years. In South Canara tenants are of two kinds, Moolgueny and Chalgueny. The moolguenies are permanent tenants under the moolwurgdar or landlord, paying a fixed and invariable rent. These tenancy rights have been for the most part obtained from the landlord as grants in perpetuity on the payment of a fine and on condition of paying annually a specified rent. Such tenants cannot be ousted except for non-payment of rent, and even in this case not till they have been fully recompensed by the landlord for the permanent improvements they may have made on the lands. Subject to payment of rent they are at liberty to sub-rent, mortgage, or sell their interest, and are rather a description of subordinate landlords than mere tenants. On failure of heirs the title lapses to the landlord. In granting land on moolgueny tenure conditions are now often imposed which are never found in the ancient deeds, e.g., that the right shall not be alienable, and that on the rent falling into arrears, or the trees standing on the land being wilfully destroyed, the lease shall be forfeited. The chalguenies are temporary ryots under the moolwurgdars or moolguenies; their lease is for a limited term, usually one year, or even at will. In the case of these tenants the landlord has the right to raise the rent or oust the tenants whenever he pleases, when no period is fixed, after however reimbursing him for all permanent improvements made by him. Practically the tenants are seldom ousted unless they are heavily in arrears. In some large estates there is an intermediary tenancy, when the tenants have no written leases, but are in practice treated as moolguenies. The rents of moolguenies and chalguenies are paid either in money or a certain quantity of grain, and never by a share of the crop as in other parts of the Presidency. In Malabar the tenures under which lands are

held by tenants are Kaunom, Panayam, Kooyikaunom, and Veroompauttom. In the first two cases the tenant has some pecuniary interest in the land. In the case of kaunom the rent is paid to the jenmy after allowing the tenant a deduction on account of the interest on the sum advanced and the Government revenue of the land. This kind of case generally extends over a period of twelve years, on the expiration of which it is renewed or revoked according as the jenmy and the tenant are on terms good or bad with each other. If the deed is renewed the jenmy is entitled to a fee or allowance calculated at 20 per cent. or more on the amount originally advanced. The sum so paid will not be shown in the deeds, nor will it be returned to the tenant at any time. If the jenmy desires to resume the land, he has to make over to the tenant the whole of the deposit money and the customary value of any improvements which may have been effected by the tenant. This cannot be done before the expiration of the term of twelve years. If meanwhile the land deteriorates through the neglect of the tenant, he shall have to give compensation to the jenmy for the damage thus sustained. In the case of Panayam, land is given possession of as security for a certain amount advanced. Rent is paid to the jenmy after deducting the interest on the sum advanced at the rate specified in the deed. In some cases when the deed provides that the mortgagee should pay the Government revenue, a sum on this account is also deducted from the rent payable to the jenmy. When there is no period prescribed in the deed, the jenmy may whenever he likes take back the land on payment to the mortgagee of the sum advanced. These mortgagees are not generally allowed to make improvements on the land. Unoccupied waste parambas are leased on Kooyikaunom right generally for twelve years, and sometimes for longer periods, for the purpose of raising buildings and plantations thereon; when the land is returned to the jenmy on the expiration of the term the value of improvements made by the tenant is paid to him. In this as well as the two foregoing cases the right possessed by the tenants on the lands held by them is transferable. The death of either tenant or landlord does not affect the lease when there are surviving members in the family of either. Another kind of lease called Veroompauttom or simple lease is generally for one year, and sometimes for longer periods, and is terminable according to the terms shown in the deed. A rent, generally two-thirds of the produce of the land, is annually paid by the tenant to the landlord. In the case of leases for longer periods than one year the landlord receives in advance the rent for a certain period not exceeding one year. The tenant receives no interest for the amount thus advanced, but on the termination of the lease the said amount is either repaid to the tenant or credit given him for the same against the rent due by him. There is also another kind of lease known as Oondarty, under which the landlord receives in advance the rent for a certain number of years and the land is let out to the tenant for the same period. The tenant has no more payments to make to the landlord. When the period expires the land is returned to the landlord. This kind of lease is generally applicable to paramboos and plantations.

140. The Government are not concerned in any way in transactions connected with land other than those already mentioned. It may be observed, however, that private mortgages are exceedingly common. Sums of money are frequently advanced upon landed security, the condition being generally that the mortgagee shall enter and enjoy the land for a definite period, though sometimes it is arranged that the mortgagor shall hold as a tenant of the mortgagee during the term and sometimes the lands are hypothecated simply. Sub-mortgages are frequently made on the East Coast. It is not customary for an outgoing mortgagee to claim compensation for improvements. Private sales of land again take place, but by no means so frequently. Mortgages are most numerous on the West Coast, especially in Malabar, for reasons already given. It is there considered disgraceful to sell absolutely the jenm right, i.e., birth-right or proprietorship. There are several kinds of Malabar mortgages, the principal being Otty and Adima Jenm. The peculiarity of the latter mortgage is that the sum borrowed is not mentioned in the deed, and that its use is confined to Rajahs, Numboories, and heads of villages. In South Canara land and produce are separately mortgaged. If the land itself is mortgaged no interest is demanded. The mortgagor is sometimes permitted to reside upon the estate and allowed to cultivate a small portion in the capacity of

a tenant, but the mortgagee pays the Circar rent and transacts the whole business of the estate as if he were the proper owner. The mortgage bond always contains a clause that as soon as the sum borrowed is repaid the land is to be returned to the mortgagor, the latter paying the expenses of all improvements. A certain portion of the produce of estate is frequently mortgaged for the discharge of interest on debts. In this case it is stipulated that a certain quantity of rice is to be paid annually, but that the person receiving the rice shall be allowed no interference with the estate. Should the mortgagor fail in the payment, the land itself is to be made over to the mortgagee. The first of these Canara mortgages is termed Bhogyaudy or living mortgage, the other Toradavoo or dead mortgage.

141. LAW.—The Regulations and Acts relating to the Land and Land Tenures now in force in this Presidency are Statute 13, Ed. 1 ('De Donis'), 3 and 4 Wm. IV, c. 85, s. 86 (Government of India); India Act IV of 1837, s. 1 (Property in Land); India Act II of 1851, s. 8 (Land Revenue, Madras Town); India Act XXVIII of 1866, s. 23 (Powers of Mortgagees and Trustees); India Act VII of 1870, ss. 7, 8, 19, XII, XXII (Court Fees); India Act X of 1870 (Land Acquisition); India Act XXVI of 1871 (Advances for Agricultural Improvements); India Act VIII of 1875, s. 6 (Inland Customs); India Act XXI of 1876, ss. 2, 5 (amending Land Improvement Act); India Act III of 1877, ss. 17 (1), 89 (Registration); India Act XV of 1877, s. 4, sch. II, Nos. 17, 18 (Limitation); India Act VII of 1878, ss. 10, 37, 83 (Forests); India Act I of 1879, ss. 4, 5, sch. I, No. 12 (a) (Stamp); India Act XVI of 1881, s. 10 (Obstructions in Fairways); India Act II of 1882, s. 36 (Trusts); India Act IV of 1882, s. 8 (Transfer of Property); India Act V of 1882, s. 19 (Easements); India Act X of 1882, s. 88 (Criminal Procedure); India Act XIV of 1882, s. 398 (Civil Procedure); India Act XV of 1882, ss. 41, 49 (Presidency Small Cause Courts); Madras Act II of 1864, ss. 11, 32, 33, 41 (Recovery of Arrears of Revenue); Madras Act VIII of 1865 (Recovery of Rent); Madras Act VI of 1867, ss. 4, 17, 19, 23 (Land Revenue, Madras Town); Madras Act II of 1868, ss. 6, 9 (Tolls on Roads and Bridges); Madras Act I of 1870, s. 3 (Canal Tolls and Ferries); Madras Act II of 1871, s. 1 (explaining Madras Act VIII of 1865, s. 11, cl. 4); Madras Act V of 1882, ss. 10, 30 (Madras Forests); Madras Regulation XXV of 1802: a Regulation for declaring the proprietary right of lands to be vested in individual persons, and for defining the rights of such persons, under a permanent assessment of the Land Revenue in the British territories subject to the Presidency of Fort St. George: section 2 declares that the proprietary right of the soil shall become vested in the zemindars or other proprietors of land, and in their heirs and lawful successors: under section 3 where the conditions of the permanent assessment of the revenue have been adjusted, a sunnud i milkeut istimrar, or deed of permanent property, is granted to zemindars who execute a correspondent cabooleat, the sunnuds and cabooleat containing the conditions and articles of tenure by which the lands are held: by section 4 lakhiraj lands are excluded from permanent settlement: section 8 allows proprietors of land to transfer their proprietary right in the whole, or in any part of their zemindarries; Madras Regulation XXVI of 1802: a Regulation for governing the sale and sub-division of Malgoozarry lands in the British territory subject to the Presidency of Fort St. George: under section 2, Collectors are required to keep registers of revenue-paying lands and of transfers of lands: section 3 declares that transfers of land made by individual persons without being registered in the registers of the Collectors shall not be valid; and Madras Regulation IV of 1822: a Regulation declaring the true intent and meaning of Regulations XXV, XXVII (repealed) and XXX (repealed) of 1802, so far as they relate to the rights of the actual cultivators of the soil: section 2 declares that the provisions of Regulation XXV of 1802 "were not meant to define, limit, infringe, or destroy the actual rights of any description of landholders or tenants; but merely to point out in what manner tenants might be proceeded against, in the event of their not paying the rents justly due from them, leaving them to recover their rights, if infringed, with full costs and damages, in the established Courts of Justice." The detailed law on the subject is shown under the heads of 'Agricultural Lease,' 'Lakhiraj Lands,' 'Land,' 'Land Acquisition,' 'Landholder,' 'Land Improve-

ment,' 'Landlord and Tenant,' 'Puttah,' 'Register of Revenue-paying Lands,' 'Ryotwarry Tenure,' and 'Sunnud i milkeut istimrar,' in Vol. II, App. LIV.

142. STATISTICS.—The table at foot [5] shows the number of holdings and holders direct under Government, with the area and assessment of the holdings, as ascertained for a very recent date. The number of persons who own property and who are independent of labour, as returned in the census schedules, is 176,580, or 1·1 per cent. of the male population. They are most numerous in the Tanjore district, where 7·7 per cent. of the males are so entered. In the Godavery district this class forms 3 per cent. of the population, while in Tinnevelly and Coimbatore only 0·04 and 0·02 per cent. are so returned. The Brahmins figure out of all proportion to any other class as holders of property; 64,545, or 11·7 per cent. of their numbers being included under this head. The Cshatriyas have 3·1 per cent. The Chetties, who have their capital mostly laid out in trade, have only 0·5 per cent. The Vellalars or cultivating castes have only 1·6 per cent., but many of these are wealthy, though they hold their lands only on ryotwarry tenure. The writer or accountant castes are considerable holders of property in the districts of Vizagapatam and Tanjore, where 22·4 and 31·4 per cent. respectively of their numbers are so classed.

LAND REVENUE COLLECTION.

143. INTRODUCTION.—The collection or demand of Land Revenue will be noticed with the same order of subjects as in the case of Land Revenue Tenures.

144. THE DEMAND ON PERMANENTLY SETTLED ESTATES.—The land-revenue demand on all zemindarries, mootahs and other proprietary estates is fixed once for all, and no remissions are granted for loss of crop or other reasons. There is, therefore, no special yearly investigation and settlement as in the case of ryotwarry holdings. Slight variations, however, occasionally occur. For instance lands forming part of a zemindarry are sometimes taken up by Government for public works. Again the collection of Government quit-rents on inams situated in the zemindarries is sometimes transferred to the Zemindars, who add the amount to their peshcush less 10 per cent. for the trouble of collecting. In such cases the necessary adjustments are made by the Collectors and reported to the Board of Revenue. Water-rates are also charged on zemindarry lands when water is used from sources of irrigation newly created by Government. The charge is made only on lands actually irrigated every year; but where the Zemindars consent, a com-

[5] HOLDINGS AND HOLDERS DIRECT UNDER GOVERNMENT.

Nature of holdings.		Number of estates.	Number of villages.	Number of holders or share-holders.	Gross area in acres.	Average area of each estate	Average assessment of each estate.
		1	2	3	4	5	6
					ACRES.	ACRES.	RS.
Great Zemindarries paying more than Rs. 50,000 revenue.	Held by individuals under the law of primogeniture ...	15	9,621	15	6,067,834	404,522	1,84,135
	Held by individuals and families under ordinary law...	1	269	1	116,102	116,102	59,929
Large Zemindarries paying more than Rs. 5,000 revenue.	Held under the law of primogeniture	53	6,497	56	8,157,848	41,173	15,026
	Held under ordinary law ...	67	1,343	116	926,664	13,831	10,649
Small Zemindarries, Mootahs, &c., other than those of cultivating communities		678	3,111	966	2,563,484	3,781	1,099
Proprietary cultivating communities paying in common		1,081	771	12,176	22,842	21	61
Rented estates		450	1,158	2,130	199,610	443	649
Proprietary cultivators paying more than Rs. 100.		43,067	11,027	84,081	2,903,546	67	195
Do. do. paying separately including all small estates paying less than Rs. 100.		2,491,130	25,651	3,579,478	16,181,131	7	10
Holders of revenue-free tenures.	In perpetuity.	404,600	30,526	650,684	7,981,555	19	9
	For life ...	1,795	929	2,492	30,849	17	10
Land-holders who have redeemed the revenue ...		519	139	465	4,759	9	...
Purchase of waste lands		648	152	214	28,477	44	42

position is made with them for a term of years. Where existing works have been superseded by the new works, full allowance is made for the area previously irrigated by the former. For instance in the case of the Nidadvole Zemindarry in the Godavery, where the Government anicut works have obstructed the Zemindar's ancient sources of irrigation, the estate has been allowed to irrigate under the anicut channels free of charge 25,881 acres of land, which was formerly irrigated, or considered capable of being irrigated. The charges for water-rate go under the general technical head "Miscellaneous Revenue." The jenm or peshcush paid by Zemindars has usually been fixed in the first instance at two-thirds of the gross estimated collections from the cultivator.

145. THE DEMAND ON INAM LANDS.—The whole question of the demand on inam lands would naturally be treated here. Technically however, it is only the quit-rent on whole inam villages, or "Shrotriems" as these are called, that is treated as a separate item, quit-rent on other or "Minor" inams falling under the head Miscellaneous Land-revenue. The quit-rent on inam villages is a fixed revenue, and no remissions, as a rule, are granted. Variations will however occur in the same way as in zemindarries on account of lands being taken up by the Government for public purposes, or on account of water-rate, &c.; or again in the event of the holder relinquishing land. The quit-rent on inam lands is usually called jody in cases where it represents the old quit-rent as opposed to that recently imposed by the Inam Commission.

146. QUIT-RENTS ON BUILDING SITES.—The quit-rents derived from building sites fall naturally for mention here. They are grouped, however, technically under Land-revenue Miscellaneous, and will be explained hereafter.

147. THE DEMAND ON RYOTWARRY HOLDINGS.—The actual rate at which the land is to be assessed under ryotwarry is fixed for a period of thirty years by the Revenue Settlement Department. But the ryot has the liberty, as already explained, of contracting or extending his holdings; and the Government undertake to grant remissions of land revenue, and assume the right to make extra charges under certain circumstances. There are therefore considerable variations from year to year to be attended to at the jummahbundy or yearly settlement of accounts. The ryotwarry settlement is formed by adding to the assessment of the holdings (first) the charge on account of second-crop cultivation, and (secondly) water-tax on ryotwarry lands; and deducting therefrom (first) the assessment of waste remitted, (secondly) occasional remissions, (thirdly) fixed remissions, and (fourthly) deductions on account of village establishments and sundry other purposes. Sundry items classed as miscellaneous revenue are afterwards added to the demand. It may be mentioned that in the Bombay ryotwarry there are no remissions, except for famine or other extraordinary cause.

148. The jummahbundy just mentioned generally takes place after December, by which time most of the important crops have been harvested and most of the changes likely to take place in holdings are ascertained. The different places where it is to be conducted, mostly four or five in each talook, are previously notified, the village officers concerned are summoned, and ryots who have any representations to make are invited to attend. The settlement officer is usually the revenue officer in charge of the revenue division. It is the duty of the Tahsildar to see that all the village accounts are ready before the date fixed for the jummahbundy, and this is usually carried out by causing the curnums to come to the talook cutcherry two or three weeks in advance and there finish whatever is incomplete in their accounts. The principal accounts which the curnum brings with him to the jummahbundy are the Adangal, No. 4 of the village accounts, or account against each field, taking the fields according to the pymaish or latest survey; the rain-account, No. 2 B, or account of supply of irrigation-water; and the statement of monthly cultivation, No. 1, or account of cultivation in each field, used to check the Adangal. Arrived at the talook cutcherry the curnum prepares the different extracts required for that cutcherry or for the settlement officer himself. When the accounts are ready the settlement officer proceeds to the different stations already fixed, and passes orders on the accounts, in the presence as far as possible of the inhabitants of each village. The statements placed before the

settlement officer vary in different districts, but the following may be taken as a sample list:—No. 8 of the village accounts, or Vajaputty, that is to say, list of remissions claimed in accordance with the established rules; a water-rate statement for each village, that is to say, recommendations for the charge or remission of water-rate; a talook statement for orders in cases of unauthorized cultivation of either poramboke or assessed waste, as also in cases of excess or deficient extent found on measurement; a talook statement, for orders in cases arising out of cowles, and other special puttahs; No. 6 of the village accounts, for orders as to the rate of assessment in cases of poramboke land being newly taken up after permission; and a talook statement showing miscellaneous cases sent up for orders by the Tahsildar. In the last column but one of all these statements are entered remarks and recommendations by the Tahsildar. For instance as regards wet land remission he will enter in abstract the general particulars of the block of irrigation to which the field in question belongs; thus total holdings and total left waste under that branch of irrigation, how many months' supply the tank (if it is a tank) is capable of holding, and how many months' water it has received; whether the holder of the field has any special claims for indulgence; and any other matters which may occur. The settlement officer writes his final orders in the last column. The statements, as disposed of for each village by the settlement officer, are taken away to the talook cutcherry, and the orders entered are there put in force. The next step is for the curnum to prepare the Chittah, No. 5, in the village accounts, or ledger of accounts against each puttah; this evidently consists merely in taking out entries from the field register or Adangal, as modified by the orders of the settlement officer, and booking them against the different puttahs. After the chittah is prepared it is checked by the talook goomasta, and is signed and stamped by the Tahsildar. In practice a great part of the chittah will be already written up before the curnum comes to jummahbundy. From the chittah as finally signed in the talook cutcherry, the curnum writes up all such puttahs as require renewal or to be modified or newly issued, and these are checked by the talook goomastas and signed and stamped by the settlement officer. According to the usual practice, no puttah is renewed or modified or newly issued except at the time of jummahbundy, even though sanction for such proceedings may have been given during the current work of the preceding months of the year. Renewal of a puttah can only be necessary when either the old puttah has been lost, or when it is full and has no room for further entries. As a rule the yearly changes take the form of modifications, that is to say of new entries entered under the old entries, with a signature for the new entries. Changes in a puttah are necessitated, either in order to change the name, the last holder having died (powty) or having relinquished (sody); or in order to change the account items, the water-rate or land-assessment or special cess or other item being different this year from last (jasty and cummee). When land is newly taken up (durkhast), entirely new puttahs have to be issued, at least in cases where the applicant is not already a puttahdar. Properly speaking the curnum should obtain at the hands of the ryots concerned all old puttahs which require renewal or modification, but this is not always done, the puttah of the latest date being held to supersede all previous puttahs. The puttahs after being signed by the settlement officer are handed back to the curnum, and it is his duty to distribute them to the ryots. The fluctuations involved in the proceedings of the yearly settlement are not allowed to interfere with the current collections. By rights a ryot must up till the date of jummahbundy pay his kists as if the demand was the same as for last year; but in practice amounts which are known to be under decision are allowed by the monigars to stand over. Similarly when a transfer is known to have taken place, collections will in practice be made in advance of jummahbundy from the new holder. When the jummahbundy is completely finished certain other abstract accounts are prepared by the curnum, which need not here be particularized. Cultivation made after the jummahbundy, but appertaining to the fusly then in question, appears under Land-revenue Miscellaneous, and is treated as a separate item of revenue. Remissions granted after jummahbundy are similarly not shown in the accounts of the year, but the amounts involved are written off the accounts as irrecoverable with the sanction of Government in the following year. It is to be noted that in Bombay, where there are no yearly ordinary remissions, the jummahbundy is more simple than in

Madras, involving only changes on account of new occupation, relinquishment, or partition.

149. The standard rates of assessment are determined by the Revenue Settlement Department, as hereafter described. Briefly speaking the lands are first classified according to their soils, and the grain values of each soil are determined by actual experiments taken over a large area and with the help of other extraneous information. From the grain value thus determined a deduction is made on account of unfavourable seasons and cultivation expenses, and the remainder, which represents the net produce, is halved. From this half a small deduction is again made on account of unprofitable areas, and the remainder is commuted into money at a fixed rate, which represents the average value of the grain for a series of years sufficiently long to balance the ordinary fluctuations of seasons and other temporary causes. The money-rates thus obtained approximate as nearly as possible to half of the value of the net produce.

150. In fixing the standard rates of assessment the irrigated lands are presumed to yield but one crop, and when a second crop is raised on them with the aid of Government water half the standard rate is charged in addition. In some cases however this charge has already been commuted at the old pymaish or by the Settlement Department into a fixed payment consolidated with the ordinary assessment, and this consolidated sum is then paid whether the second crop is raised or not. The object of the latter arrangement is to save Government the trouble of instituting a scrutiny into the extent of second-crop cultivation each year, and to save the ryots from interference on the part of petty revenue officials. To make the arrangement acceptable to the ryot, the composition rates are somewhat lower than those charged when the payment for second crop is left optional. The ryots do not make any payment if the second crop in question is raised without the aid of Government water. For instance, a dry crop raised as second crop in land classed as irrigated is not liable to any charge where no Government water is available. It happens but seldom that private irrigation is applied to wet lands. In the case of unirrigated lands the ryot is competent to raise any number of crops, for though the soil has been used more than once in the year Government water has not been supplied to it. Irrigation under private wells is not as a rule liable to any charge, but wells within the ayacut are considered to draw water from the tank and it has been usual to charge for irrigation from such wells even though there was no water in the tank. The rules on this subject have however recently been modified and it has been decided as follows. (1) No water rate shall be charged on dry lands irrigated solely from private wells, situated on land which is private property, or constructed prior to the issue of these rules, within whatever distance the wells may be from a public irrigation source. (2) In wet land, provided the tank or other irrigation source receives no supply whatever during the period the crop is on the ground; crops raised under private wells shall be charged thus (*a*) in single crop or registered double crop land; for the first crop dry rate, for the second crop nothing. In registered double crop land if a supply is received during the first crop but none during the second, the charge will be the single crop wet assessment, if such is separately assessed, if not two-thirds of the total double crop wet assessment. If supply is received during the second crop, but not during the first, the charge will be dry rate, plus the second crop wet assessment if such is separately assessed; if not, one-third of the total double crop wet assessment. (*b*) In land where the second crop charge is compounded, single dry rate. In such land the full compounded rate will be charged if any supply is received during the year. Dry rate means in the settled districts, the dry rate fixed for the class and sort of soil and group: in unsettled districts, the highest dry rate of the village. (3) Nothing in the foregoing rule is to be held to prejudice the claims of holders of wet lands containing, or irrigable from, private wells, to remission under the ordinary rules for waste or withered crop.

151. Water tax technically so called is charged whenever lands classed and assessed as unirrigated are irrigated by the aid of Government water. The rates vary with reference to the usage of the locality, to the character of the irrigation, to the time for which the irrigation is required, and to the nature of the crop raised;

and run from 8 rupees to $1\frac{1}{2}$ rupees per acre. In the delta talooks of the Godavery and Kistna and in some of the talooks of Kurnool all the lands are assessed at dry rates, and the whole charge for water appears therefore under water-tax. Government water-tax imposed on inam lands, or in zemindarries, does not come technically under this head, but under Land-revenue Miscellaneous.

152. Under the head of Waste Remitted are technically included all deductions from the land-demand made on account of land left absolutely waste; that is, in which no crop has been put down. It is a remission of the full assessment, is made only where cultivation has been impossible on account of the usual supplies of Government water having been deficient or excessive and is not given in the case of land classed as unirrigated. Any neglect to cultivate on the part of the holders invalidates the claim to remission.

153. Waste remitted is in reality an "occasional" remission, inasmuch as it depends on the season. Being however usually a large item it is treated technically as a separate head. The occasional remissions technically so-called include all remissions dependent on the nature of the season, other than that for absolute waste. They consist of the following items:—(1) shavy or withered crops; (2) pauniboody or payamauly, that is to say land flooded and injured by water; (3) palanashtam or loss of produce; (4) teervacummee or difference between wet and dry assessment; (5) fasalcummee or second crop not cultivated; (6) miscellaneous remissions. Remissions under items 1 and 2 are as a rule granted on irrigated lands only when the crop is totally lost owing to either deficiency or excess of water, and provided only that such excess or deficiency has not been occasioned by any act or neglect of the person to whom the land belongs. Remissions for partial loss of crop under item 3 are only granted in districts which have not been settled by the Settlement Department and where the assessment may therefore be higher; these also are confined to irrigated lands. In granting the remissions last named no attempt is made to estimate individual losses, but the remission is granted in the form of a certain percentage taken off from the assessment of the lands in which the crop is lost, the percentage being determined with reference to the extent of the average loss sustained in the particular tracts affected. Remissions are not granted on unirrigated lands except in very exceptional years and under very exceptional circumstances and with the previous sanction of the Board of Revenue. The remission under item 4 is granted when a dry crop is raised on land classed and assessed as irrigated, but which otherwise would have been left waste. In such cases the dry crop assessment alone is levied, and the difference between that and the assessment chargeable on irrigated land is remitted. The remission under item 5 is granted where the land is assessed for two crops, but it has not been possible to raise a second crop for want of water. The miscellaneous remissions consist of various sundry items, such as those granted on account of lands cultivated having been taken up for public works or for the Forest Department, on account of lands washed away by rivers, &c., &c.

154. "Fixed remissions" are remissions which are granted for reasons other than those relating to the season. They consist of the following items:—(1) Remission granted for labour involved in reclaiming lands. This is mostly granted for lands situated on a high level in consideration of the difficulty of bringing them under wet cultivation. (2) Remission granted on the ground that the standard rates in unsettled districts are too heavy. The old pymaish assessments having in some districts been heavy, certain reductions were made in the rates of assessment. The difference between the old and reduced rates appears as remission. (3) Remissions allowed on the introduction of the new rates of assessment. These are granted with the special sanction of Government, where any newly fixed rates of assessment are particularly high and their gradual introduction is considered desirable. (4) Remission granted to privileged classes; that is to say, remissions allowed to certain classes of persons who by custom or caste are prevented from cultivating lands themselves. These are fast disappearing with the introduction of the new rates of settlement, which do not recognize any class privileges. (5) Remission granted on account of irrigation by lift. This is granted for cultivation raised on high level wet lands by baling or other mechanical

contrivances. (6) Remission granted under the tope rules. As an encouragement to the formation of topes or small woods, persons are allowed to plant trees under certain conditions free of assessment for 20 years. At the end of that period the land is assessed if retained in possession of the planter, but left unassessed if the tope is thrown open to the public. The assessment remitted during the 20 years is shown under remissions. As a rule the land granted on these terms is one that has been waste for more than 10 years. If the trees are planted on land usually cultivated no remission is granted. (7) Remission granted for maintaining irrigation works. This is called technically "Dasbandam," and is an allowance made in the shape of remission of revenue in compensation for the construction of tanks, wells, and channels, and for the repairs of such works. (8) Remission on grass lands. Ryots on a portion of the Neilgherries are allowed to hold an extent equal to one-fourth of their holdings at one-fourth of the full assessment for purposes of pasture. The difference between the full and quarter assessment is treated as remission so long as the land is allowed to lie fallow and actually used as pasture. When once cultivated it is charged with full assessment, and this is maintained whether the land is thenceforward cultivated or used for pasture again. No new lands are now granted under this tenure. (9) Cowle remissions. Lands which have been long lying waste, or which require outlay of capital or labour to bring them under cultivation, are allowed to be taken on easy terms for a number of years; they are either free of tax or subject to a favourable assessment, and the difference between the standard assessment and the assessment actually charged is shown under remissions. (10) Remission granted on forest lands taken up for cultivation in the Neilgherries and in Malabar. Forest lands taken up in the Neilgherries and in Wynaud for coffee or other plantations are not charged with assessment for five and three years respectively in consideration of the preliminary expenses necessary for the plantations, and as a remunerative crop is rarely obtained until after the lapse of those periods. For the periods mentioned the assessment of the lands is shown under remissions. (11) Miscellaneous. This consists of various small items, such as landlord's share on escheated lands sold, remission of assessment in favour of pagodas, &c., &c.

155. Sundry Deductions, otherwise called Beriz Deductions, are in reality of two classes, though not so arranged technically. In the one case the principle is that the Government abandons a certain amount of the land-demand in consideration of the ryot discharging certain liabilities hitherto discharged by Government. Such are payments of fees or salaries to village servants and of stipends to Inamdars. In the other case certain sums which are due from the ryot, and which have been hitherto consolidated with the land-demand, are now separated from it, and the ryot is directed to pay them elsewhere. An example of the latter is the road-cess in the Kistna. The subtraction from the land-demand is a convenient way of adjusting accounts, and is an old practice in this Presidency. Sometimes a deduction will represent a transaction under both of the heads just mentioned; as for instance where a deduction on account of village service represents partly the sum hitherto contributed by the ryot and partly the sum granted by the Government. The amounts deducted are properly speaking paid by the ryots direct to the persons or authorities to whom they are due. But practically the village officers collect the amounts.

156. In speaking of West Coast tenures between Government and landholders it was mentioned that in form the agreement was a ryotwarry agreement. The details of the demand made, however, show the peculiarity of the situation. Thus the average assessment in Malabar is Rupees 1-9-8 for dry land and Rupees 2-15-5 for wet land, compared to an average for the whole Presidency of Rupees 1-1-3 for the former and Rupees 5-11-8 for the latter. The excess in the case of dry land is due to the fact that all the more valuable permanent garden produce is classed in Malabar under this head. The assessments, therefore, are very low and tacitly allow the existence of middlemen and of other interests besides those of Government. The wet cultivation exceeds that of any other district except Tanjore, and would, if assessed at the ordinary rates of other ryotwarry districts, produce probably double the revenue. In Canara too ample provision is left for a landlord's share. The fiscal division of estates in Canara is noticeable. Bhurty means full

or paying the entire tharow demand. Cumbhurty means paying less than the full tharow demand. The cumbhurty is again subdivided into (a) Board Sifarsh, or estates which owing to natural disadvantages never can be expected to pay the full demand, and are entered in the accounts as doubtful, but are practically treated as with reduced demand; (b) Taniky, or estates on which it is uncertain under present circumstances whether the full assessment will be leviable in the future and which are consequently kept under investigation and settled annually according to the circumstances of each case; this sub-division again includes a large proportion of estates (Kayamcummee), on which a certain amount of assessment has been fixed according to their present capacity, but which may still be able to pay the full assessment hereafter; and (c) Vayidah, or estates which after a certain definite period will be able to pay the full demand, and will be required to do so. The settlement officer leaves Bhurty and Board Sifarsh as he finds them, and settled in the lump; he deals with the Taniky at his discretion; and in the case of Vayidah there is usually an annual increment, to be decided by the settlement officer, by which the estate is to be brought up to bhurty and cumbhurty. Practically the same village agency is employed on the West Coast as in other parts of the country. It should be mentioned that the low assessments of Malabar have proved a serious difficulty in levying cesses which are proportioned to the assessment. The important Local Fund Cess is a case in point and yields a very poor revenue. In zemindarries the Local Fund Act has specially provided for assessing the cess on the rents paid by ryots to Zemindars and taking the amount from the Zemindar, and the application of this to Malabar would give a higher cess-revenue. But this has only quite recently been legalized. One of the principal difficulties in this case is the decision as to who is in such case the person to be dealt with analogous to the Zemindar, land-ownership being on the West Coast in a very confused state.

157. In some localities wet crops are still divided between the Government and the ryot under the Amauny system. The share of Government in the produce varies according to usage, but in the majority of cases it is 50 per cent. of the gross produce minus fees paid to village servants. The crop is cut under the personal inspection of Government officers, and the gross produce is divided by actual measurement. After division the Government share, which is called the Rajabhogam or Melvaram, is sold and the proceeds are carried to the credit of Government. It will be understood that the settlement in these cases is still with the individual ryot, on the ryotwarry system. The Amauny method of settlement and collection represents the traditional method peculiar to the Hindoos under their own rulers. Apart from the machinery of collection, it will be seen that it differs from the method of the English Government in that it settles on the basis of dividing the gross instead of the net produce. Amauny is still a favorite system between Zemindars and their tenants, and estates coming under the Court of Wards frequently bring this mode of settlement with them. The British Government have not encouraged it. It would be impossible at the present day to keep in hand the large establishment that would be necessary. Moreover the ryots are said to dislike Amauny, as the crops cannot be taken in until measured by the Government official, and have often to lie on the ground till damaged. There are at the present moment only six Government villages in the Presidency in which division of the produce takes place, namely, four in Madura and two in Chingleput. The total revenue of these is 2,300 rupees.

158. The demand under Oloogoo differs from that under ordinary ryotwarry in this, that the Government dues vary to a certain extent with the current prices of grain. The grain is commuted for a money-value, but not for an absolutely fixed value. The commutation rate is founded on the price of past years, but all increase of price of over 10 per cent. above the standard is added to the demand, while all decrease of more than 5 per cent. under the standard is remitted to the ryot. If the ryots are dissatisfied with any year's settlement they can claim division of produce. There are therefore no remissions on account of the season. Oloogoo holdings obtain now in only one small hamlet in Tanjore, the revenue of which is Rupees 26.

159. THE DEMAND IN ESTATES RENTED OUT.—Revenue due to Government by renters of estates is collected in the same way as that due by any ordinary ryot under the ryotwarry system, with the difference that the lands in the villages rented are not sold for arrears unless they are the property of the renters. The renter's right is saleable, but it is seldom sold as generally the sale of their personal property is sufficient to secure the revenue.

160. LAND-REVENUE MISCELLANEOUS.—Under the head of Land-revenue Miscellaneous are included all charges pertaining to lands other than those held by ryots under the ryotwarry system, or lands held by Government ryots under certain peculiar circumstances. They consist of the following items :—(1) Jody on Sundry Inams. This is the quit-rent or favourable assessment charged on inams smaller than a village at the time of the grant or by the Inam Commissioner. (2) Charge for water on Zemindarry and Inam lands. This is a charge made for supplying irrigation to Zemindarry and Inam lands from Government works. The charge is made only when the irrigation supplied is such as the landholders are not already entitled to in virtue of grants or original settlement. (3) Land cultivated but not included in the jummahbundy. This is the revenue brought to account after the annual settlement and issue of puttahs, but belonging to the then current fusly. (4) Assessed land cultivated without durkhast or permission. Assessed lands taken up without application and sanction are inquired into at the annual settlement and disposed of according to their merits. But if in any case inquiries cannot be completed within the year, or if puttahs are delayed for any other cause, such lands are shown under this item. (5) Fees for service of revenue processes. This is the amount collected, in addition to the assessment, from revenue defaulters on whom processes are issued, to meet the cost of the establishment entertained for the purpose. (6) Revenue from rented villages. This is mainly derived from persons to whom villages have been rented out in consequence of some difficulty in introducing a ryotwarry settlement. The bulk of this revenue is derived from the Palcondah and Honjeram estates in the Vizagapatam district which have been rented out to Messrs. Arbuthnot & Co. since 1846. The present rental amounts to Rupees 1,30,000 per annum. The lessees agree to hold as farmers of land holding farms immediately from Government; to guarantee to all parties all the rights and privileges connected with the soil to which they are entitled by Law or custom; to demand no more assessment than the amount rated in the public accounts (except where they have improved the land by works of irrigation); and to maintain all the irrigation works in repair. (7) Grazing-tax or grass-rent. This revenue is derived by the sale of grazing farms in villages, principally in the districts of Nellore, Kistna, and Madura. A considerable amount of revenue used formerly to be derived from this source in the first two districts, but since the abolition of the system of selling the farms by auction to the highest bidder, the revenue has greatly diminished and amounted in 1882-83 to only Rupees 33,800 for the whole Presidency. In Kistna, the whole of the unoccupied waste in villages is now thrown open to the public for use as pasture free of charge and only the hilly and jungly tracts are leased out for rent and the proceeds credited to Forests. In Nellore an extent of waste equal to 150 per cent. of the occupied area is left free for pasture in each village and the remainder, if it exceeds acres 100, is leased out to cattle breeders or others owning large herds of cattle. In Mâdura, the grazing tax is levied only in some talooks of the sub-division in which the ryots are allowed to hold waste lands for pasture to the extent of one-fifth of their holdings, at one-fourth assessment. (8) Rent of islands situated in rivers. Lands in islands in rivers do not come under ryotwarry settlement; they are leased out and this is the amount of their rental and is derived chiefly in the Godavery district. (9) Tax on trees on unassessed lands. This consists of rent of palmyra trees, rent of fruit trees, &c. The trees are the scattered trees standing on lands not held under puttahs. Persons holding palmyra trees under such a tax can only use or sell the fruit and leaf, the right to draw and sell the toddy being the perquisite of the Abkarry contractor. (10) Quit-rent and ground-rent in the town of Madras. The houses and lands in the town of Madras are subject to a quit-rent which is in reality another name for Land Revenue or Land Tax. It is however, permanent, not liable to be modified periodically and is payable in arrears in one payment and not in instalments. It becomes due on the first day of the following year and its recovery is barred six years after it falls due. In all

other respects the Land Revenue system of the town of Madras is Ryotwarry. Ground-rent is collected on lands owned by Government. It varies according to the demand existing for the land in particular localities. The quit-rent yields on an average Rupees 65,000 a year and ground-rent Rupees 4,000. With the exception of the cases mentioned below under No. 17 there is nothing similar in the districts. Quit-rent in Madras is in fact a special form of land revenue. (11) Cultivation of poramboke lands. This is the revenue charged on unassessed or reserved lands when improperly cultivated. In Madras, differing from Bombay, unauthorized cultivation of unassessed lands can be met by punitive assessment calculated on a multiple scale on the average rate of assessment of the adjacent lands. (12) Rent of garden and topes which have become the property of Government. (13) Sale-proceeds of unassessed waste lands sold by Government. Such lands are sold in lots not exceeding acres 10 each if within towns, villages, hill stations, railway stations and sanitaria and subject to an upset price which varies for each district and which includes the cost of the preliminary survey and demarcation. The lands are sold to the highest bidder and free of assessment. (14) Revenue from hill villages. This revenue is derived from certain hill villages (chiefly in Salem and Trichinopoly districts) which have been excluded from the survey. The cultivation is not permanent and no puttahs are therefore issued. (15) Revenue derived from coir, the produce of Amindivy Islands attached to South Canara. In these islands cocoanut is nearly the only product, and no land assessment is collected. The islanders are compelled to sell all their coir to Government at a fixed rate, lower than the market rate. The Government sell and realize a profit. The arrangement is similar to the salt monopoly. (16) Excess collections over the demand. This is overpayment erroneously made by the ryots and which is to be eventually refunded. (17) Quit-rent on bungalows and gardens. In some special cases lands are given on favourable assessment for buildings, instead of being treated as ordinary ryotwarry lands. (18) Commission on private estates under the management of the Court of Wards. A commission of $1\frac{1}{2}$ per cent. is levied by Government on the revenue of the estates managed by the Court of Wards. After deducting charges of management, collection of revenue, and maintenance of public works and buildings. (19) Water-tax on summer crops cultivated at the close of the preceding fusly, and not then brought to account. (20) Revenue fines imposed on revenue servants. (21) Revenue from sequestered inams, or the assessment of inam lands placed under attachment for various reasons, for instance the non-appearance of Inamdars for settlement. This item also includes the assessment of Service Inams kept under attachment pending the revision of village establishments. The assessment credited to Land-revenue Miscellaneous temporarily though eventually transferred to Village Service Fund. (22) Cultivation of jungle tracts newly cleared by burning in South Canara. The cultivation is not permanent and therefore puttahs are not issued annually. (23) Russooms or fees collected from zemindarries, &c. These are resumed fees in certain Polliems in the Nellore district which were enfranchised from the condition of service after the introduction of the new police. (24) Tax on house-sites and backyards exceeding the limit allowed. (25) Choonam-shell rent, or rent derived by farming out the right of collecting shells for making choonam. (26) Charge for water on miscellaneous Jeroyaty lands, otherwise Ayan lands, otherwise non-Inam lands. This is the charge made for water on lands for which puttahs are not issued, but which are included under Miscellaneous Revenue. (27) Chunk fisheries. This is the revenue derived from the sale of chunk shells which are generally fished under the superintendence of the Port officer at Tuticorin. The number of shells fished during the past seven years averaged 258,700 and the net revenue from their sale about Rupees 17,700 per annum. (28) Revenue deposits forfeited. Deposits are forfeited for various causes. For instance, a purchaser in a revenue sale deposits a certain amount, but if he fails to complete the sale by paying the full sum within the prescribed time he forfeits his deposit. (29) Revenue from Amauny villages. (30) Sundry items. These consist of various small items too numerous to mention.

161. Special Cases of Assessment.—A few special points remain for notice. On special products a special assessment was formerly levied; this is now abandoned, and the land alone is taxed and not its products. Tank-beds may not be

cultivated; if a ryot improperly occupies, remissions are refused, or prohibitory assessment is imposed, to compel him to relinquish. For river-bed cultivation the same remark applies; there are no special rules. When wet land becomes no longer irrigable from one cause or another, the Collector has authority to class it as dry. When land is found on measurement to be in excess of what it was assumed to be in the register, 10 per cent. margin is allowed and the excess over it is charged for. The same rule is followed in granting remissions, when a deficiency is found to exist as compared with the register; that is to say, remission is granted only on such portion of land as is more than 10 per cent. below the registered amount. The rule applies to districts which have not been surveyed by the Survey Department. In surveyed districts such differences are seldom found and when discovered the registers are corrected. In the case of lands under private tanks the ayacut is as a rule entirely held by the owner of the tank, and he pays a special rate for the entire area, viz., Rupees 2½ per acre in most districts. If a portion of the ayacut is held by the ryots, the charge for water supplied must be the subject of private arrangement. No additional charge is made on account of irrigation under jungle-streams and natural pools, provided that Government has incurred no expense in their improvement, and provided that the use of water does not interfere with the supply to any Government work.

162. LAND REVENUE ACCORDING TO THE LAND FROM WHICH IT IS DERIVED.—Almost all the land revenue is derived from the lands elsewhere described as assessed lands. The following items however and some others are realized from the unassessed waste:—(1) Tax or rent of scattered trees; (2) Chunk rent; (3) Choonam rent; (4) Fish-rent; (5) Rent on lime quarries. These all fall under the technical head of Land-revenue Miscellaneous.

163. ASSESSMENT ON LANDS CONTAINING MINERALS.—Applications for mining are rare, and the question of assessment on lands so applied for is treated specially in each case. The relations of Government with those who hold land containing mineral resources will be seen from the remarks in the introduction to the article on that subject.

164. REVISION OF AYACUT.—In many cases the so-called irrigable ayacut under a work of irrigation is not really irrigable. In some cases on the other hand a larger extent of land is irrigated than is registered as irrigable. The Settlement Department in some districts and Collectors in others are now engaged in revising ayacuts with reference to the actual capacity of the tanks and the extent cultivated within the last five years. Particular cases are seldom dealt with in the ordinary course of the land administration.

165. SUB-DIVISION OF ASSESSMENT.—The mode in which the sub-division of landed property is permitted has been already described, and it has been mentioned that the transactions are not valid against Government until the assessment on the sub-divided portions has been adjusted by the Collector. The principle observed in all cases is that the original peshcush or assessment is not to be disturbed, but is to be taken as a total and rateably sub-divided according to the new sub-divisions. In Zemindarries and Inam lands the new proportions are based on the present estimated value of the lands, and in ryotwarry holdings they are based on the assessment already fixed on such lands.

166. PAYMENTS OF LAND REVENUE.—The peshcush of large zemindarries is generally paid into the Collector's treasury, and that of small Zemindarries and Inam villages into the talook treasury. Other items of land revenue are paid in the villages to the monigar. Payments are not collected, but brought by the parties. The money is received in the first instance by the monigar, who gives a receipt for it in a prescribed form. According to the rules the curnum also should sign the receipt in token of having then and there made the corresponding entries in the village accounts. Where there are several villages however and several monigars to a single curnum, the latter cannot always be on the spot to sign the receipt taken away by the ryot. The monigar having received the money, goes to the curnum and has the sum entered in the day-book, No. 10 of the village accounts. The curnum subsequently credits the individual in the account kept in the name of different puttahdars, No. 3 of the village series, and also enters the item in the

abstract demand, collection, and balance statement, No. 11, which he keeps in the name of the different puttahdars. When this is completed he prepares an advice-note, or Irsaulnama, No. 12, and the monigar despatches the money then and there with No. 3, No. 10, and No. 12 abovementioned, to the Tahsildar's treasury. No. 12 goes in duplicate, No. 3 and No. 10 and one copy of No. 12 are initialled by the Talook Sheristadar and returned by the bearer to the monigar. When the money is first brought in by the ryot it is the business of the monigar to examine the coin, and see that it is correct. The accounts here shown, when regularly kept, furnish the talook officials with immediate information as to which ryots have paid to date and which ryots are in arrears, so that they can immediately after receipt of each remittance issue then and there, if they wish, the first demand-notice in coercive process. It is sometimes even the practice for the curnum to fill in and send up with the remittance a coercive process form for every ryot in arrears at that date. The remittances from the village to the talook office take place generally once a month after the corresponding ryotwarry kist has fallen due; but sometimes the remittances are made more frequently. During the month the cash collected is kept by the village monigar in his own house at his own risk. In the case of zemindarries and other permanently-settled estates, the payments are made according to the varying instalments mentioned in the sunnuds, but in the case of all other revenue the instalments shown below are observed.[1]

167. ADVANCES TO RYOTS.—Advances called tuccavy used to be made to Government ryots for mere cultivation expenses, but the system was found open to abuse and has now been given up. No advances to ryots are made at present, except under the Land Improvement Act, India No. XXVI of 1871. The object of this Act was to define the purposes for which it was held to be legitimate to place a charge on the land, as security for the repayment of advances made by the State, to enable improvements to be carried out, and to give the Government a preferable

[1] RYOTWARRY KISTS.

Districts.	Proportion of annual tax payable by the 15th of each month.								
	15th November.	15th December.	15th January.	15th February.	15th March.	15th April.	15th May.	15th June.	Total.
									ANNAS.
Arcot, North	2	2	4	4	2	2	...	...	16
Arcot, South	2	2	2	4	4	2	...	...	16
Bellary	...	2	2	4	4	2	2	...	16
Canara, South	...	...	...	...	8	4	4	...	16
Chingleput	...	2	2	4	4	2	2	...	16
Coimbatore	2	2	4	4	2	2	...	...	16
Cuddapah	...	4	4	4	4	...	...	...	16
Ganjam	...	4	4	4	4	...	...	...	16
Godavery ... ... Dry ...	...	4	4	4	4	...	...	...	16
Godavery ... ... Wet ...	...	...	6	6	4	...	...	...	16
Kistna	2	4	4	4	2	...	...	...	16
Kurnool	2	4	4	4	2	...	...	...	16
Madura	...	2	2	2	2	4	4	...	16
Malabar	2	2	4	4	2	2	...	...	16
Wynaud	...	...	6	...	6	4	...	...	16
Neilgherries	2	2	4	4	2	2	...	...	16
Nellore	...	2	2	2	4	4	2	...	16
Salem	2	2	4	4	2	2	...	...	16
Tanjore Kar	3	6	7	...	...	...	...	...	16
Tanjore Samba	...	...	...	2	3	5	4	2	16
Tanjore Dry	3	6	7	...	...	...	...	...	16*
Tanjore Do.	...	...	...	2	3	5	4	2	16†
Tanjore Do.	1	2	3	1	2	3	3	1	16‡
Tinnevelly	2	2	4	4	2	2	...	...	16
Trichinopoly	...	4	4	4	4	...	...	...	16
Vizagapatam	...	4	4	4	4	...	...	...	16

* On half the cultivation if the cultivation up to October is below 50 per cent., and on actual cultivation if more.
† On the remainder.
‡ On wet and dry lands in Kattoogoottagay or joint-rented villages of Tirootoraypoondy talook.

claim on the land for such repayment. These purposes were defined to be undertakings whose object is the permanent improvement of the productive powers of the land, and such undertakings are of three classes: (1) wells, tanks, or other works for the storage, supply, or distribution of water for agricultural purposes, or the preparation of land for irrigation; (2) works for the drainage of land, for reclaiming land from river or other waters, and for the protection of land from floods or erosion; (3) for reclaiming, clearing, or enclosing lands for agricultural purposes. The provisions of the Act, which has been amended as to procedure by India Act XXI of 1876, are that a landowner, or tenant with his landlord's sanction, should apply for an advance; and that the Collector after satisfying himself that the object comes under one of the above three classes, and that the security offered is sufficient, may make the advance, and shall ultimately recover it in the same way as the land revenue is collected. Further details as to the amounts to be lent, the mode of making applications, the mode of inquiring into the security and the object, the interest to be charged, the manner and time of repaying instalments, and the amount of those instalments, are provided for by rules drawn up by the Local Government and sanctioned by the Governor-General in Council. The interest charged is $6\frac{1}{4}$ per cent. per annum, or an anna in the rupee per annum. The sums which have been advanced under the Act are small. This result is alleged to be due to several causes, among which the following are the most prominent:—the obstacles created by some native subordinates, to whom the granting of such advances gives extra trouble; the delay and expense of the initial procedure, under which the first application has to be stamped, the bond for repayment has to be stamped and registered, and a minute and troublesome inquiry has to be made into the nature of the applicant's tenure and its value; the small number of years over which repayment may be spread, and the consequent magnitude of the annual instalments; the early date at which the instalments begin to fall due, even before the improvement has begun to realize a profit; and the rigidity of the rules for punctual repayment. Act XXVI of 1871 and Act XXI of 1876 will both be repealed by India Act XIX of 1883 which it is proposed to bring into force in this Presidency at an early date. The Government have now under consideration draft rules which have been prepared under the new Land Improvement Laws Act of 1883.

168. THE ACQUISITION OF LAND FOR PUBLIC PURPOSES.—When land is needed for a public purpose or for the purposes of a company, it is usual in this Presidency to take it by an amicable arrangement with the owners, the procedure laid down in the Land Acquisition Act being applied only in cases where the owners will not agree to reasonable terms, or where there is a doubt in regard to title. If the law is applied the procedure is as follows. A declaration is first made under the signature of the Secretary to Government or other officer duly authorized that such and such land is required for public purposes; the Collector then gives notice to the public and to parties concerned, stating that the Government intends to take possession of the land, and that claims to compensation must be made to him on a date and at a place specified. On the date fixed the Collector inquires into the value of the land and determines the amount and tenders it to the person interested; if the parties agree to the amount, the matter is at once settled and the Collector takes possession of the land. If the offer is not accepted and the Collector is unable to agree with the parties, or if there is any question regarding the title of the parties interested, the Collector refers the matter to the Civil Court which, with the aid of assessors, determines the amount of the compensation payable. In determining the compensation the market-value at the time of awarding compensation, and the damage, if any, sustained by reason of severing such land from the owners of other lands are taken into consideration, but not the urgency which has led to the acquisition, nor the disinclination of the party interested to part with the land acquired. An appeal is provided against the award made by the Court. Payment is made to the owner by the Collector according to the award, or if there has been an appeal according to the decision on such appeal; possession of the land is then taken. If land is required only temporarily, the Government directs the Collector to procure the occupation and use of the land for such term as may be necessary not exceeding three years. On the expiration of the term the land is restored to the owner, with such compensation as may be necessary for any damage done and not provided for by the original agreement.

If the land becomes permanently unfit for use the Government takes the land as if it was permanently required for a public purpose or for a company. In case the Collector and the owner of the land differ as to the condition of the land at the expiration of the term, or to any matter connected with the agreement, the Collector refers the matter for the orders of the Court.

169. COERCIVE MEASURES.—When land revenue due to Government falls into arrears it is recovered under Madras Act II of 1864 together with interest at 6 per cent. and costs of process, by the Collector or his deputy, by the sale of the defaulter's movable property including uncut crops or immovable property including buildings on land, or by execution against the person of the defaulter. In the case of Zemindars holding under a Sunnud i milkeut istimrar, the personal property must, under the terms of the sunnud, first be sold, and the land only in the event of the first measure not proving sufficient. In the case of other defaulters, the Collector may at his discretion sell either the movable or immovable property or both. If there is any doubt as to ownership, the Collector will naturally attach the land in preference. Before any property is attached for arrears, due notice is given to the defaulter, and another notice is served previous to sale. Sometimes, though rarely, the arrear is realized by not selling the land, but by keeping it under Government management and appropriating the proceeds. Persons other than the defaulters who may be interested in the land can have the sale stopped by payment of the arrear. There is now no restriction as regards the distraint of implements of husbandry. The sale of land is at the discretion of the Collector, and he is not bound to recognize any transfers except such as have been registered in his office. The sale does not prevent the defaulter from collecting balances of rent due to him by under-tenants for periods anterior to the sale. Land may be purchased Benamee; that is, the defaulter himself or any of his friends may purchase it when put up for sale. The former law forbade this. The land revenue has the first claim on landed property against all other creditors, and the crops of an under-tenant are not protected, except that the latter has subsequent redress. When a purchaser buys land at a revenue sale, he does so taking the land free of all encumbrances; that is to say, land passing through a revenue sale (as opposed to a Civil Court sale) becomes purged of all previous claims, even including the Government assessment due to date. Certificates of sale are issued to the purchaser; no sanction to sales is now required except in the case of zemindarries, and these require the sanction of Government. There is provision for enforcing the certificate and giving possession to the purchaser. In some cases Government buy the land for themselves. Hitherto sales for arrears could not be set aside by the Revenue officers. This defect has now been remedied by Madras Act III of 1884 under which all sales require to be confirmed by the Collector before a certificate can be issued to the purchaser. When the arrears cannot be liquidated by the sale of the property of the defaulter, and there is reason to believe that he is wilfully withholding payment of the arrears, or has been guilty of fraudulent conduct in withholding payment, the defaulter is liable to be arrested and imprisoned for a period not exceeding two years if the arrear exceeds 500 rupees, not exceeding six months if it is at that amount or below, and not exceeding three months if it is 50 rupees or below. Such imprisonment does not extinguish the debt. When the revenue is paid in kind the crop is not allowed to be removed until division has been made. The above procedure is applicable not only to arrears of land revenue, but to all advances made by Government, for cultivation or other purposes connected with the revenue, to all fees due to village servants employed in Revenue and Police duties, and to all cesses imposed upon the land. Process servers are as a rule specially paid peons; heads of villages are however bound to serve process also. The extent to which coercive process is employed in the collection of the land-revenue is, on the whole, not large. There has certainly been a very large increase of late years in the number of legal processes issued for this object, but the fact is that formerly the law was not used, while coercion took place nevertheless. Moreover the provisions of the present law are so lenient that it suits the convenience of ryots to allow process to be issued though they intend ultimately to pay. The interest charged on arrears has been reduced by Act II of 1864 from 12 per cent. to 6 per cent., and the ryot now gains rather than loses pecuniarily by waiting for a better market, or leaving his money out at interest, while the process is running. Taking the absolute results, and

without reference to the history of the working of the law, there are no grounds for dissatisfaction. In the fusly year ending 30th June 1883, the total demand, current and arrears, amounted to over 545¾ lakhs, of which 470½ lakhs or 86·2 per cent. were collected without recourse to coercive processes and only 2 per cent. by the sale of the defaulter's property.

170. Recovery of Private Rents.—Zemindars, shrotriemdars, jagheerdars, inamdars, and persons farming lands or land revenue under Government are authorized by Madras Act VIII of 1865 to recover their rents under a summary process, provided that the landlord and the tenant have exchanged puttahs and moochilkas or written agreements in regard to the terms on which the land is to be held, and provided the summary powers are sought to be exercised within one year from the time when the rent becomes due. The Government, that is to say in these cases, assists the landholder to recover from his tenants. And it at the same time excludes the Civil Courts from jurisdiction. The landholders are allowed to exercise summary power even where no puttahs and moochilkas are executed if both parties have agreed to dispense with them. Landholders holding under ryotwarry settlements, or in any other way subject to the payment of land revenue direct to Government, and all other registered holders of land in proprietary rights who have not yet been mentioned, are given the benefit of the Act if they have taken an agreement in writing from their tenants, but not otherwise. If the rent remains unpaid at the time when, according to any written agreement or the custom of the country, it ought to have been paid, the landholder is authorized to distrain, upon his own responsibility and with the aid of the police if necessary, the crops and movable property of the tenants, after giving due notice; but he is bound to send within ten days a written notice to the Collector or other officer duly empowered in that behalf, showing the details of the property distrained, to enable the Collector to have the property appraised. Tenants are allowed to prefer an appeal to the Collector against wrongful distraint, but the appeal must be made within thirty days from the date of the distraint. If the appeal is established the Collector orders the property to be restored, but if no appeal is made, or, if having been made it is rejected, the Collector on the application of the distrainer authorizes the public officer duly appointed in that behalf to cause the sale of the movable property, which is accordingly sold by him after due notice. Where the tenant has a saleable interest in the land, this also is sold under the rules laid down for the sale of the movable property. When there is no property or it is insufficient, the landholder can apply to the Collector for a warrant authorizing him to eject the tenant and to enter on the land; a warrant is accordingly granted and entrusted to a police officer. If no appeal is made to the Collector within fifteen days after the warrant is served, or if an appeal has been made and it is decided against the defaulter, the police officer places the landholder in possession of the land. The landholder is also competent to apply for a warrant for the personal arrest of the defaulter, which is granted if the Collector is satisfied that the defaulter is wilfully withholding payment or has been guilty of fraudulent conduct in order to evade payment; but no defaulter can be imprisoned for a longer period than two years, whatever the amount of arrear may be. It is open to the landholder either to exercise the summary powers above referred to, or to recover his rent in the ordinary courts of law like any other debt.

171. Statistics of Land Revenue realized.—The list at foot [2] shows the total collections of land revenue in this Presidency since the official year 1861-62.

[2] Land Revenue Collections since 1861.

	RS.		RS.
1861-62	4,11,25,880	1872-73	4,68,84,480
1862-63	4,20,64,980	1873-74	4,44,66,930
1863-64	4,29,65,350	1874-75	4,63,20,630
1864-65	4,18,11,620	1875-76	4,53,96,570
1865-66	4,29,17,660	1876-77	3,29,65,750
1866-67	3,63,55,090	1877-78	3,49,48,840
1867-68	4,23,97,050	1878-79	4,94,90,472
1868-69	4,05,87,570	1879-80	4,93,67,317
1869-70	4,47,60,560	1880-81	4,57,91,918
1870-71	4,39,33,510	1881-82	4,57,52,386
1871-72	4,43,53,410	1882-83	4,71,36,889

In the next statement [3] the amount of the land revenue is compared with the amount of other sources of revenue, since the year 1853-54. It should be noted that some talooks of the old North Canara district were transferred to the Bombay Presidency in fusly 1271 (1861-62); and 1876-77 was a famine year.

172. It would be desirable to ascertain the ratio of the land revenue to the actual gross produce of the whole country and the net assets of land, especially with reference to the question of tenures of land; but it is not possible to do this with any approach to accuracy. No exact information exists as to the actual gross produce of lands paying land revenue to Government. Though the land-tax was imposed, theoretically at least, on a share of the gross produce of the land, this share or its commuted value has varied greatly in different districts and at different times. The principle on which the land-tax of ryotwarry districts is at present undergoing revision and re-settlement, preceded by a scientific survey, is that it should in no case exceed 40 per cent. of the gross produce in the case of lands for which irrigation is provided at Government cost, or one-third of the gross produce in the case of lands not so irrigated. These proportions are found to be nearly equal to half the net produce. If all the land were ryotwarry it might be roughly assumed that the revenues amounted to half the net produce, but much of it is held at a favourable quit-rent or permanently settled, and in these cases the sum paid to Government bears no fixed proportion to the produce. However an attempt has been made to estimate this percentage, as shown in the table at foot for seven provinces.[4] So far as this calculation is valid, it does not appear that the incidence

[3] COMPARISON OF LAND REVENUE AND OTHER SOURCES OF REVENUE SINCE 1853.

Fuslies.	Land revenue.	Abkarry.	Moturpha.	Income-tax and license-tax.	Sea customs.	Land customs.	Salt.	Stamps.	Sundry small farms and licenses.	Extra revenue.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1263 (1853-54) ...	3,34,13,131	22,12,922	11,42,488	...	10,08,741	2,47,258	46,66,955	5,74,595	3,12,878	2,93,085
1264 (1854-55) ...	3,34,23,137	20,84,583	10,56,047	...	10,24,588	1,62,553	50,09,794	5,55,822	2,71,636	3,14,820
1265 (1855-56) ...	3,67,16,990	22,50,782	10,05,721	...	11,82,498	1,98,227	53,52,434	6,59,880	2,83,298	3,84,829
1266 (1856-57) ...	3,86,67,880	24,79,535	10,93,474	...	12,65,921	1,90,769	53,99,683	7,15,379	...	2,65,262
1267 (1857-58) ...	3,69,51,886	27,41,042	10,89,578	...	2,15,154	1,88,826	57,05,039	7,56,055	...	2,67,108
1268 (1858-59) ...	4,10,54,313	28,29,694	10,98,208	...	14,45,164	1,99,370	59,96,081	8,13,566	...	2,41,378
1269 (1859-60) ...	4,08,16,585	29,70,723	10,99,475	...	25,36,583	2,47,827	65,40,662	8,59,593	...	6,15,090
1270 (1860-61) ...	4,00,23,311	30,85,615	9,80,762	9,61,685	24,34,748	2,91,683	73,01,540	17,94,532	...	5,59,015
1271 (1861-62) ...	4,12,14,336	34,21,771	1,25,008	17,00,367	19,87,682	2,61,511	87,00,422	27,44,325	...	...
1272 (1862-63) ...	4,28,46,083	35,37,242	4,887	21,56,954	18,68,524	2,08,555	91,97,336	21,15,130	...	...
1273 (1863-64) ...	4,33,87,693	40,51,803	4,092	14,47,828	20,53,007	2,56,079	94,78,138	23,99,798	...	...
1274 (1864-65) ...	4,23,22,362	39,90,671	...	14,82,427	18,07,776	2,21,826	99,13,602	27,65,169	...	...
1275 (1865-66) ...	4,20,58,242	41,70,229	...	3,44,604	19,45,425	1,23,979	1,02,88,699	31,49,219	...	...
1276 (1866-67) ...	4,36,32,482	47,94,988	...	2,68,124	20,68,505	1,25,830	1,15,86,785	30,56,643	...	...
1277 (1867-68) ...	4,02,48,753	51,07,636	...	4,77,487	24,11,354	1,51,606	1,05,62,129	35,89,001	...	...
1278 (1868-69) ...	4,27,38,513	49,06,090	...	6,06,408	25,88,750	1,89,756	1,12,00,792	39,49,938	...	...
1279 (1869-70) ...	4,48,71,062	59,96,871	...	13,32,370	27,69,194	1,77,427	1,24,11,157	38,11,538	...	...
1280 (1870-71) ...	4,46,82,300	57,22,553	...	22,84,492	28,05,693	1,88,891	1,26,05,338	39,55,479	...	...
1281 (1871-72) ...	4,47,62,502	58,95,766	...	7,98,105	29,09,871	2,05,900	1,28,88,031	41,56,460	...	...
1282 (1872-73) ...	4,57,90,079	60,53,226	...	5,44,209	28,73,582	1,95,369	1,28,52,626	42,27,205	...	...
1283 (1873-74) ...	4,35,08,100	60,92,727	...	11,921	31,05,855	2,07,358	1,26,81,560	47,88,682	...	...
1284 (1874-75) ...	4,70,18,950	59,36,706	...	808	29,86,629	3,04,790	1,37,20,485	45,65,817	...	...
1285 (1875-76) ...	4,42,05,343	65,08,843	...	326	26,69,251	2,49,734	1,32,70,714	50,23,445	...	...
1286 (1876-77) ...	2,78,51,314	52,25,784	...	1,065	20,18,878	1,59,776	1,30,49,179	50,36,402	...	...
1287 (1877-78) ...	4,03,90,988	48,52,682	...	1,955	20,46,142	1,03,840	1,16,48,806	49,23,506	...	...
1288 (1878-79) ...	5,04,69,093	61,06,999	Opium and intoxicating drugs.	10,65,225	18,64,960	1,21,638	1,52,44,935	52,37,148	...	...
1289 (1879-80) ...	4,67,77,388	59,44,532	40	8,06,425	21,27,035	1,97,478	1,57,33,395	53,46,008	These figures relate to official year.	
1290 (1880-81) ...	4,61,48,409	56,48,075	6,30,801	5,08,527	22,91,859	1,96,195	1,56,43,359	54,69,904		
1291 (1881-82) ...	4,47,01,729	60,15,476	4,68,340	4,77,214	18,77,588	1,09,645	1,47,29,165	54,40,230		
1292 (1882-83) ...	4,70,56,338	59,44,447	5,13,969	4,60,360	9,51,755	94,029	1,39,08,519	52,08,370		

[4] PERCENTAGE OF LAND REVENUE TO GROSS PRODUCE IN DIFFERENT PROVINCES.

Province.	Population.	Cultivated area.		Value of gross produce at Rupees 50 per ton for food, and Rupees 30 per acre for non-food crops.	Land revenue.	Percentage of land revenue upon value of produce.
		Food crop.	Non-food.			
		ACRES.*	ACRES.*	RS.*	RS.*	
Punjaub	17,600,000	18,500	2,500	3,41,500	19,100	5·6
North-Western Provinces and Oudh ..	41,000,000	31,450	5,200	7,17,500	55,650	7·8
Bengal	60,000,000	48,000	6,000	10,35,000	40,500	3·9
Central Provinces	8,200,000	12,000	2,500	2,12,500	6,000	3·8
Berar	2,250,000	3,700	2,800	1,15,000	5,250	4·6
Bombay	16,000,000	21,500	5,500	3,90,000	29,700	7·6
Madras	31,000,000	26,000	2,500	5,00,000	31,600	6·3

* Three ciphers omitted.

of the land revenue on the gross produce of the land is to any important extent affected by the tenure on which the land is held. At first sight it might appear probable that the land revenue would be lighter in Northern than in Southern India, seeing that where a landlord exists there are two parties to share the net profits of agriculture with the Government, and that it is the principle in the provinces where the zemindarry tenure prevails to take as land revenue not more than half the average rent or its equivalent, while in provinces where the ryotwarry tenure prevails the assessment is fixed with reference to the net produce of the land, which is necessarily more than the rent would be. But an examination of the figures will show that, although the differences in the rate of incidence in different provinces are considerable, whether the calculation is based on the cultivated area or the estimated value of the gross produce, those differences have no connection with the prevalent form of tenure, and the inequality can be traced to other causes. According to the table the land revenue bears to the gross produce of the soil in different provinces, a proportion ranging from 4 to 8 per cent., being lowest in the Central Provinces and highest in the North-Western Provinces and Oudh, in both of which the zemindarry tenure prevails. Similarly the incidence of the land revenue per cultivated acre is lowest in the Central Provinces, and highest in the North-Western Provinces and Oudh; the next highest rate being found in Bombay and Madras, where the tenures are ryotwarry. The high rate paid per head by Berar and Bombay is due to the relatively thin population, which, so long as there are enough agriculturists to till the ground, is an advantage rather than the reverse. On the whole, inquiry shows that the burden of the assessment depends mainly on historical and economical conditions, on the sums paid in previous times, on the competition for land and the density of the population, and on the fertility of the soil, and its protection by artificial irrigation or by climate from calamities of season; and whether the tenure of those who pay the assessment is zemindarry or ryotwarry has very little to do with the proportion of the produce received by the Government.

173. Proportions of land revenue to acreage and population are more easily ascertainable. The next statement [5] shows the gross land revenue demand, including charges for water, &c., per acre for all districts of the Madras Presidency,

[5] LAND REVENUE DEMAND PER ACRE IN EACH DISTRICT.

Districts.	Dry.			Wet.		
	Extent.	Assessment.	Average.	Extent.	Assessment including second-crop assessment and water-tax.	Average.
	ACRES.	RS.	RS. A. P.	ACRES.	RS.	RS. A. P.
Anantapore	838,384	3,86,877	0 7 5	59,495	3,39,819	5 11 4
Arcot, North	427,721	5,83,763	1 5 10	217,307	14,03,333	6 7 4
Arcot, South	976,318	16,44,580	1 10 11	285,055	18,41,788	6 7 4
Bellary	1,111,027	8,39,157	0 12 1	31,668	2,18,820	6 14 6
Chingleput	217,642	2,47,268	1 2 2	326,107	12,68,350	3 14 2
Coimbatore	2,173,708	20,18,635	0 14 10	84,652	6,58,199	7 12 5
Cuddapah	1,027,261	8,71,633	0 13 7	110,782	7,80,502	7 0 9
Ganjam	177,277	2,35,836	1 5 3	151,872	4,97,711	3 4 5
Godavery	473,257	7,23,134	1 8 5	297,051	18,40,838	6 3 2
Kistna	1,607,285	24,02,648	1 7 11	202,180	12,01,549	5 15 1
Kurnool	975,281	9,82,993	1 0 1	24,330	1,92,071	7 14 4
Madras	22	38	1 11 7	22	57	2 9 5
Madura	668,925	8,77,546	1 5 0	134,280	6,02,260	4 7 9
Neilgherries	111,922	76,777	0 11 0	2,203	3,336	1 8 3
Nellore	733,910	8,60,515	1 2 9	175,160	9,89,581	5 10 5
Salem	972,951	11,21,904	1 2 5	91,103	5,18,997	5 11 1
Tanjore	304,454	3,76,398	1 3 9	752,561	39,68,767	5 4 4
Tinnevelly	1,192,988	9,18,970	0 12 4	187,637	17,09,765	9 1 9
Trichinopoly	844,067	7,97,853	0 15 1	136,057	7,17,287	5 4 4
Vizagapatam	57,604	63,685	1 1 8	26,276	1,41,512	5 6 2
Total ...	14,892,004	1,60,30,210	1 1 3	3,295,798	1,88,94,542	5 11 8
Malabar	389,939	6,26,443	1 9 8	393,273	11,66,669	2 15 5

except South Canara divided under the heads of dry and wet land. These figures are for fusly 1292 (1882-83). South Canara is omitted because it is an unsurveyed district and its area is therefore not known. The rate per acre of the land-tax on ryotwarry land varies very widely in the different districts. In those where the new survey and re-settlement have been introduced the rate on gross area varies from 4 annas to 12 rupees, and the whole number of rates for a whole district does not exceed 35. In districts where the land assessment is still imposed as at the beginning of the century, the rate on irrigated land is occasionally as high as 35 rupees and that on unirrigated land as high as 4 rupees and-a-half, and the total number of rates in a district is as large as 814. The actual rates for fusly 1292 (1882-83) were for dry Rs. 1-1-5, and for wet Rs. 4-8-7. Taking an average of the whole Presidency, the rate per acre is about 1 rupee 2 annas on unirrigated land, or 4 rupees 12 annas on irrigated land. The average revenue rates on wet lands are understood to be high, as compared with the valuation of irrigated lands in Upper India; but the general revenue incidence on wet and dry lands together will be found to be almost exactly the same as that of the North-Western Provinces. The valuation of wet land exceeds that of dry land by a greater ratio than is found in Upper India. The extreme case in this Presidency is in Tinnevelly, where the average revenue rate on wet land is to that on dry land as eleven to one. The next table [6] shows the incidence of land revenue on the gross amount of cultivated land per acre in the three heaviest assessed and three lightest assessed districts in six provinces. The next table [7] gives a summary of various incidences per acre and per head in this Presidency as compared with other parts of British India. The incidence of rent, that is to say, the incidence of all payments to Government, and to other landlords if any, in the Presidency of Madras may be taken as Rupees 2-8-5 per cultivated acre and 2-3-4 per head of population.

174. Appendices LVII and LVIII, Vol. II, give various particulars regarding the land revenue and land cesses therewith allied, and the area of cultivated land, calculated for a recent average fusly year.

[6] Maxima and Minima of Assessments in different Provinces.

—	Three heaviest assessed districts.			Three lightest assessed districts.		
	I.	II.	III.	I.	II.	III.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
North-West Provinces	2 8 0	2 7 4	2 6 9	1 3 9	1 1 10	0 10 3
Oudh	2 5 9	2 5 6	2 5 5	1 7 0	1 3 4	1 1 7
Punjaub	1 15 6	1 13 6	1 11 9	0 7 8	0 5 10	0 3 3
Central Provinces	0 11 6	0 11 2	0 9 10	0 4 0	0 3 11	0 2 9
Madras	3 12 11	2 13 7	2 13 0	0 14 3	0 11 8	0 11 2
Bombay	4 3 3	3 6 4	3 6 0	0 8 1	0 7 5	0 7 1

[7] Various Incidences in the several Provinces.

Provinces.	Per acre of gross area.	Per acre of revenue-paying cultivable area.	Per acre of revenue-paying cultivated area.	Per male agriculturist.	Per head of total population.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Bengal	0 5 9	...	...	3 5 4	0 10 2
Assam	0 2 1	...	...	2 13 9	0 12 7
North-West Provinces	0 15 5	1 7 9	2 0 2	6 8 2	1 8 8
Ajmeer	0 4 0	0 10 8	0 11 4	4 5 2	0 14 0
Oudh	0 15 8	1 4 11	1 13 8	5 6 2	1 5 4
Punjaub	0 5 5	0 8 7	1 1 9	6 13 7	1 3 6
Central Provinces	0 1 10	0 3 8	0 8 10	2 14 10	0 10 5
Berar	0 9 7	0 14 4	1 0 10	9 12 6	2 8 7
Coorg	0 5 8	1 15 7	3 0 5	6 8 3	2 0 4
British Burmah	0 1 10	1 14 2	2 0 4	10 4 7	1 13 11
Bombay	0 9 5	0 13 8	0 14 4	9 15 7	2 1 9
Scinde	0 3 10	0 12 5	0 15 3	14 4 3	2 13 1
Madras	0 9 1	1 8 8	2 1 1	7 6 5	1 10 4

175. LAW.—The principal legal provisions affecting the collection of land revenue are—Madras Regulation XXV of 1802—Revenue settlement. Madras Regulation I of 1803—a Regulation for defining the duties of the Board of Revenue, and for determining the extent of the powers vested in the Board of Revenue. Sections 35–37, 55, and 56 relate to the settlement of revenues. Madras Regulation II of 1803—a Regulation for describing and determining the conduct to be observed by Collectors in certain cases. Sections 16–23, 38 and 39 relate to the assessment on lands. Madras Regulation V of 1804—a Regulation for constituting a Court of Wards, for declaring the powers vested in the said Court, and for defining the rules under which those powers are to be exercised. Under clause 4 of section 14 the lands of incapacitated proprietors are not answerable for payment of revenue. Madras Regulation VIII of 1817—a Regulation for expediting the trial of civil suits in which the native officers and soldiers attached to regular corps on the military establishment of the Presidency of Fort St. George may be parties, and for giving to them certain facilities in the maintenance and recovery of their rights, claims and interests. Section 9 gives the procedure to be observed for the recovery of arrears of revenue when the proprietor of the estate is a native officer or soldier. Madras Regulation X of 1831—a Regulation to prohibit the sale of estates belonging to minors not under the charge of the Court of Wards, and to extend the provisions of section 20, Regulation V of 1804, to property of every description not subject to the jurisdiction of that Court. India Act XII of 1851, ss. 1–6, 8, 9–11, 13–17—an Act for securing the land revenue of the town of Madras. Madras Act II of 1864—an Act to consolidate the laws for the recovery of arrears of revenue in the Madras Presidency. Madras Act VIII of 1865—an Act to consolidate and improve the laws which define the process to be taken for the recovery of rent. Section 85 relates to the powers of managers of estates of disqualified landholders and public officers holding lands under attachment. Madras Act VI of 1867—an Act to amend Act XII of 1851 (An Act for securing the land revenue of Madras). Madras Act I of 1876—an Act to make better provision for the separate assessment of alienated portions of permanently-settled estates. The law relating to demands recoverable as arrears of land revenue is contained in India Act XII of 1850 (Public accountants), ss. 4 & 5; India Act I of 1858 (Compulsory labor, Madras), ss. 4–6; India Act VII of 1878 (Forests), s. 81; India Act VI of 1879 (Preservation of elephants), s. 10; Madras Act IV of 1864 (Cess in lieu of village fees), s. 4; Madras Act VII of 1865 (Cess for irrigation water), s. 2; Madras Act I of 1870 (Canal tolls and ferries), s. 10; Madras Act V of 1884 (Local Funds); Madras Act VI of 1871 (Excise duty on salt), s. 21; Madras Act III of 1878 (License tax), s. 20; Madras Act V of 1879 (Abkarry Laws Amendment), s. 4; Madras Act V of 1882 (Madras forests), s. 66; Madras Regulation I of 1816 (Police, Tanjore), s. 6; Madras Regulation IX of 1822 (Malversation; Collectors; Embezzlement; Appeals), s. 6; and Madras Regulation VI of 1831 (Hereditary Offices), s. 4. The law in detail is shown under the heads of "Cesses," "Arrears of Land Revenue," "Land Revenue" and "Village Cess" in Vol. II, App. LIV.

LAND REVENUE ESTABLISHMENTS.

176. BOARD OF REVENUE.—The land revenue system is, along with other subjects, controlled by the Board of Revenue.[1] The first duty of the Board is to secure the punctual collection of the revenues. In addition to that they mani-

[1] SKETCH HISTORY OF THE BOARD OF REVENUE.—With the sanction of the Court of Directors the Board of Revenue was constituted by order of Government, dated 20th June 1786. The functions of the Board were defined by Regulation I of 1803; generally stated they were "the general superintendence of the revenues from whatever source they may arise and the recommendation of such propositions to the Governor in Council as in their judgment may be calculated to augment or improve those revenues." All the revenue servants of Government were placed under their control. The Board originally consisted of a Member of the Governor's Council and 3 ordinary Members assisted by a Secretary with one or more Deputies. The Governor was the President of the Board and could take part in its

pulate and record statistics with regard to population, agriculture, exports and imports, health, and the condition and advancement of the country; they manage the expenditure of special funds; they take charge of the estates of minors as a Court of Wards; they secure the proper application of endowments; and they decide the frequent appeals which result from a system in which the Government is concerned directly with peasant proprietors. To compare the Board of Revenue with departments of Government in England, it may be said that it performs the duties undertaken there by the Board of Customs, the Board of Inland Revenue, and the Commissioner of Woods, Forests and Land Revenue, as well as much of the work that devolves upon the Treasury. In communication with the Survey and Settlement Departments, which are subordinate to it, it carries on work similar to that of the Copy-hold Enclosure and Tithe Commission in England. It takes the place in many respects of the Board of Trade, the Commission of Fisheries, and the Warden of the Standards in stamping weights and measures. Under Regulation VII of 1817 it acts the part of the English Charity Commissioners. In auditing charges connected with the administration of the revenue and the smaller local funds, it does the duty of the London Audit Office. In four-fifths of the Presidency where the land is held direct from Government by peasant proprietors it does the work which is done on a smaller scale by the Duchy of Cornwall Office for the estates of the Prince of Wales in the county of Cornwall. In its capacity as Court of Wards under Regulation V of 1804 and as a guardian of endowments under Regulation VII of 1828 it does work which in England devolves upon the Court of Chancery. Under the proviso to section 1 of Madras Act II of 1883 (An Act to provide for the conduct of business by the Board of Revenue), the Board of Revenue have arranged the distribution of their business as shown at foot.[2] Any matter ordinarily disposed of by one or two Members may, at the option of the Member or Members in charge, be laid before one or more other Members, or before a full Board. The advantages of the portfolio system and the committee system are thus combined, as in the case of the Governor's Council.

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deliberations whenever he chose to do so. Practically, however, both the Governor and the Member of his Council have ceased to attend the meetings of the Board, and the functions of the President are exercised by the senior Member of the Board. In addition to the 3 ordinary Members, the Government has authority to appoint an extraordinary Member whenever one of the ordinary Members is sent on deputation to districts to conduct inquiries. At the outset the principal work of the Board was in connection with land settlements. The work of revenue survey and settlement is now done by special establishments supervised by the Superintendent of Revenue Survey and Director of Revenue Settlement respectively and controlled by the Board and Government. The Director of Revenue Settlement is now also the Director of Agriculture and is entrusted with the duty of initiating and conducting agricultural inquiries under the orders of the Board. By Regulation V of 1804 the Board was constituted a Court of Wards. By Regulation I of 1805 the salt monopoly was created, and this branch of revenue was placed under a General Agent acting under the orders of the Board. The office of General Agent was abolished in 1808, but was revived in 1878 under the designation of the Commissionership of Salt Revenue. By Regulation I of 1808 the abkarry revenue was brought under regulation; the administration of this branch of revenue has recently been entrusted to the Commissioner of Salt Revenue, now styled the Commissioner of Salt and Abkarrry Revenue. In 1816 the General Stamp Office at Madras was established with a Superintendent at its head, under the Board's control. By Regulation 7 of 1817 the Board were entrusted with the superintendence of religious and charitable endowments and of property escheating to Government, but their powers as regards interference with religious institutions were taken away by Act XX of 1863 and they had long before that date under the orders of the Court of Directors ceased to exercise those powers. In 1821 the Sea Customs Department was transferred from the Board of Trade to the Board of Revenue. In 1822 a cutcherry or native establishment was attached to the office of the Board in order that they might have "the same sort of aid in the preparation of accounts and advice in all matters connected with taxation and improvement of the country which a Collector obtains by means of his cutcherry from constant communication with intelligent native revenue servants." In 1825 the superintendence and control of all works of irrigation, ferries, canals and roads (excepting military roads) were entrusted to the Board and the Engineering establishments connected therewith placed under their control. The Chief Engineer was given a seat in the Board in 1836, and the Board in regard to the disposal of questions in connection with public works were assisted by a Secretary with a Deputy, both Engineer officers. This arrangement lasted till 1854 when the public works were transferred to the new Department of Public Works then organized. The Board were given appellate jurisdiction over decisions of Collectors under Regulation IX of 1822, by Regulation VII of 1828, and also by Regulation VI of 1831. The audit establishment maintained in the Accountant-General's office for auditing revenue charges was transferred to the Board in 1861. It was, however, retransferred to the Accountant-General in 1877. The Local Fund Department of the Board's office was constituted in 1871 soon after the passing of the Madras Local Funds Act IV of 1871, but this establishment has recently (1885) been transferred to the Government office. The Account Branch of the Forest Central office was attached to the Board in 1872 but retransferred to the Conservator of Forests in 1875. The opium monopoly was created by Act I of 1878, and the license tax brought into operation by Act III of 1878. In 1849 the Northern Circars were placed under a Commissioner who exercised all the functions of the Board except in regard to public works. The arrangement continued till 1854 when the commission was abolished. The question of the substitution of Commissioners for the Board has been several times discussed; once in 1831, and again in 1855. It has recently been revived and is now under consideration. By Act II of 1883, Madras, the Board have been empowered to make rules subject to the orders of Government for the distribution of work among the several members, the decisions of individual members in matters connected with the subjects allotted to them having the authority of the decisions of the full Board. The Board's office consists of (1) the Secretariat Staff, the Secretary and Sub-Secretary assisted by two Uncovenanted Assistants; (2) the Correspondence and Record Departments, an establishment of Clerks with the Registrar at its head; and (3) the Cutcherry or Account Department supervised by the Sheristadar.

177. District Officers.—Appendix LV, Vol. II, and the accompanying trisectional map [3] show in detail the charges of the different divisional officers throughout the Presidency, with their head-quarters, &c. The districts were controlled at a recent date by twenty-two Collectors, fifteen Sub-Collectors (called in two cases Ganjam and Vizagapatam Principal Assistants), twenty Head Assistant Collectors (called in two cases Senior Assistants), four Special Assistants inclusive of the two Special Assistant Agents in Ganjam and Vizagapatam, twenty-nine Passed Assistants, and sixteen Unpassed Assistants (all of whom belong to the Covenanted Civil Service), assisted by fifty Uncovenanted Deputy Collectors.

178. The Collectors, who are also Magistrates, generally have each a territorial charge immediately under them, and exercise a general control over their Sub-Collectors, Assistants, and Deputy Collectors. They superintend and control all persons engaged in the administration of the revenue; they are responsible for the treasury to which the talook collections are sent, and which keeps and dispenses a large stock of stamps; they see that the revenues are punctually realized, and that when arrears accrue, the proper processes are resorted to for recovering them; they manage estates of minors under Regulation V of 1804; they determine boundary disputes under Regulation XII of 1816; they try cases of malversation under Regulation IX of 1822, and claims to village offices under Regulation VI of 1831; they decide rent cases between landlords and their tenants under Madras Act VIII of 1865; they supervise the administration of Municipalities under Madras Act IV of 1884, and of Local Funds raised for roads and communications, primary education, hospitals, and sanitation under Madras Act V of 1885; as Agents to the Board of Revenue under Regulation VII of 1817, they are responsible for the due appropriation of endowments; in maritime districts they control the sea customs; finally, they are expected to be thoroughly acquainted with the state of Native feeling in their districts in regard to the policy and measures of Government, and to be the advisers of Government with respect to police, public works, education, sanitation, and the miscellaneous matters which conduce to the welfare of their

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[2] Distribution of Work in the Board of Revenue.

Subjects ordinarily disposed of by one Member.

Agriculture—
- Cattle Diseases.
- Government Farms.
- School of Agriculture.
- Statistics.

Collection and Remission of Revenue, Routine and Ordinary Matters.
Conduct of Public Officers, Routine and Ordinary Matters.
Court of Wards, Routine and Ordinary Matters.
Customs and Marine, Routine and Ordinary Matters.
Destruction of Wild Animals.
District Post.
District Press.
Endowments (Regulation VII of 1817) and Yeomiahs.
Forests.
Inams.

Irrigation—
- Accounts.
- Cess.
- Works.

Land—
- Assignment and Acquisition of.
- Compensation for.
- Durkhast Appeals.

Land Revenue—
- Act II of 1864.
- Process Service.

Law Suits and Legal.
License Tax.
Miscellaneous.
Opium.
Pisciculture.
Public Officers—
- Leave, Allowances and Pensions.

Public Works.

Records.
Revenue Settlement, Ordinary Business of.
Stamps, Routine and Ordinary Matters.
Standing Orders, Routine and Ordinary Matters.
Survey.
Trade and Commerce, Routine and Ordinary Matters.
Treasuries.
Village Offices and Officers.
Village Service Fund.
Waste Lands, Routine and Ordinary Matters.
Zemindarries, Sub-division and Sale of Estates, Routine and Ordinary Matters.

Subjects ordinarily disposed of by two Members.

Abkarry. | Appointments. | Salt.

Subjects ordinarily disposed of by full Board.

Administration and all other Annual Reports.
Collection and Remission of Revenue.
Conduct of Public Officers.
Court of Wards.

Customs and Marine.
Revenue Settlement, Reviews and Revisions of.
Stamps.
Standing Orders.

Trade and Commerce.
Waste Lands.
Zemindarries—
- Sub-division and Sale of Estates.

[3] Spellings authorized by Government occurring in the Trisectional Map of Revenue Divisions.—Ádóni, Anantapur, Ariyalúr, Árni, Balliguda, Bellary, Berhampore, Bezváda, Calicut, Chatrapur, Chicacole, Chingleput, Chittoor, Cocanada, Coimbatore, Coondapoor, Cuddalore, Cuddapah, Cumbum, Deväla, Dindigul, Ellore, Erode, Gooty, Guntúr, Hospet, Hosúr, Koraput, Kumbakónam, Kunavaram, Kurnool, Madanapalle, Madras, Madura, Malapuram, Manantoddy, Mangalore, Mannárgudi, Masulipatam, Musiri, Námakal, Nandyál, Narasapatnam, Narsápur, Náyudupet, Negapatam, Nellore, Ongole, Ootacamund, Pálghat, Párvatipur, Penukonda, Polláchi, Ponnáni, Puttur, Pyápali, Rajahmundry, Ramnad, Ranipet, Russellkonda, Saidápet, Salem, Satyamangalam, Shermádévi, Siddhavattam, Srívilliputtúr, Tanjore, Tellicherry, Tindivanam, Tinnevelly, Tirukoilúr, Tirupatúr, Trichinopoly, Tuticorin, Vellore, Vinukonda, Vizagapatam, Vizianagram, Vriddháchalam.


TRI-SECTIONAL MAP
Shewing Districts & Revenue Divisions
(S. W. Section)
Scale 1/64 th Inch to the Mile
or 1/4055040 of nature
Miles 64 32 0 64 128 Miles
REFERENCE
District Boundary
Division do.
Zemindarries
BOMBAY
Coondapore
Hd: Assist: Collr
Mangalore
Collector
Puttoor
Genl: Dy: Collr
Tellicherri
Sub: Collr:
Manantoddi
Genl: Dy. Collr
Devalah
Hd. Assist: Collr:
Calicut
Collector
Ootacamund
Collector
Suttimungalam
Genl: Dy: Collr:
Coimbatore
Collector
Erode
Sub: Collr:
Pollachy
Hd: Assist: Collr:
Malapooram
Sp: Assist: Collr.
Ponnany
Genl: Dy: Collr
PONNANY. R
Palghaut
Hd: Assist: Collr:
Cochin Native State
Dindigul
Sub Collector
Collector
Madura
Genl: Dy: Collr
Assist: Collr
Ramnad
Hd: Assist: Collr:
Sreevillipoottore
Genl: Dy: Collr:
Tuticorin
Sub: Collr
Tinnevelly
Assist: Collr:
Shermadavy
Hd: Assist: Collr:
Travancore Native State
TRICHINOPOLY
TANJORE
VEIGAY. R.
VEIPPAUR. R.
TAMBRAPURNY. R
LACCADIVE ISLANDS
MALDIVE ISLANDS
SCALE 1 INCH = 120 MILES = 1/7603200
75°
15°
10°


TRI-SECTIONAL MAP
Shewing Districts &
Revenue Divisions
(Central Section)
Miles 64 32 0 128 Miles
REFERENCE
District Boundary
Division do.
Zemindarries
NIZAMS DOMINIONS
GODAVERY
KISTNA
Bezwada Hd: Assist: Collr
Vinoocondah Genl: Dy: Collr:
Oontoor Sub: Collr:
Masulipatam Collr
MOUTHS OF THE KISTNA R.
COONDLACUMMA R.
KURNOOL
Collector
Cumbum Genl: Dy: Collr
Adony Genl: Dy: Collr:
Nundiaul Hd: Assist: Collr:
Pyanally Genl: Dy: Collr:
DARSHY
Ongole Sub: Collr:
NELLORE
BELLARY
Bellary Collr:
Hospett Hd: Assist: Collr
Gooty Genl: Dy: Collr.
Anantapore Assist: Collr:
Penoocondah Hd: Assist: Collr
ANANTAPORE
Hd: Assist: Collr:
Cuddapah Assist: Collr:
CUDDAPAH
Sidhout Genl: Dy: Collr:
Madanapully Sub: Collr:
Hd: Assist: Collr
PENNAIR R.
Nelloie Collr:
Naidoopett Genl: Dy: Collr:
VENCATAGHERRY
POOLICAT LAKE
CALASTRY
Ranipett Hd: Assist: Collr:
CARVETNUGGUR
NORTH ARCOT
Chittore Collr
Sydapett Genl: Dy: Collr:
MADRAS
Vellore Sub: Collr:
CHINGLEPUT
Chinglepud Sub: Collr
Arnee Genl: Dy: Collr:
PALAUR R.
BOMBAY
MYSORE
Oossoor Sub: Collr:
Tripatore Hd: Assist: Collr:
Tindivanam Sub: Collr:
SOUTH ARCOT
Tirocoilore Genl: Dy: Collr:
Cuddalore Collr:
PONDICHERRY
PONNIAUR R.
Salem Collr:
SALEM
Namcull Genl: Dy: Collr:
Vriddhachellam Hd: Assist: Collr:
VELLAUR R.
COLEROON R.
Ariyaloor Genl: Dy: Collr:
CAUVERY R.
Combaconum Sub: Collr:
COIMBATORE
TRICHINOPOLY
Moosiry Hd: Assist: Collr:
Trichinopoly Assist: Collr
Negapatam Hd: Assist: Collr:
Tanjore Genl: Dy: Collr
Munnargoody Genl: Dy: Collr:
POODOOCOTTAH (State)
Assist: Collr:
TANJORE
MADURA
80°
15°
10°


TRI-SECTIONAL MAP
Shewing Districts &
Revenue Divisions
(N. E. Section)
Scale 1/64 th Inch to the Mile
or 1/4055040 of nature
Miles 64
32
0
64
128 Miles
85°
20°
15°
BENGAL
CENTRAL PROVINCES
NIZAMS DOMINIONS
KISTNA
GODAVERY
VIZAGAPATAM
GANJAM
Balligooda
Sp. Assist. Agent
Russellcondah
Genl. Dy. Collr.
Chetterpore
Collr.
ROUSHCOOLYA. R.
Berhampore
Senr. Assist. Collr.
Parvatipore
Senr. Assist. Collr.
Chicacole
Prin. Assist. Collr.
Korapult
Sp. Assist. Agent
Vizianagram
Genl. Dy. Collr.
VAMSHADHARA. R.
LANGOOLYA. R.
Narsapatam
Prin. Assist. Collr.
Vizagapatam
Collector
Coonavaram
Sp. Assist. Agent
Rajahmundry
Sub. Collr.
Cocanada
Collr.
Ellore
Head Assist. Collr.
Narsapore
Genl. Dy. Collr.
MOUTHS OF THE GODAVERY
REFERENCE
District Boundary
Division do.
Zemindarries

districts. One-fifth of the costs of all the establishments which have been described is considered chargeable to Law and Justice on account of the magisterial work performed by them, and the rest to Land-revenue. In the Agency tracts of Ganjam and Vizagapatam however one-fifth of the charges on account of the salaries, establishment and contingencies of the Special Assistants and Sub-Magistrates is debited to Land-revenue and four-fifths to Law and Justice. Collectors of districts are competent on their own authority to suspend from office or dismiss any servant of inferior grade to that of Deputy Tahsildar, Tahsildar, Sub-division Sheristadar, or Huzoor Sheristadar. The nomination to the offices just specified vests in the Collector. The Board's sanction however is required for the appointment of Huzoor Sheristadar and Sub-division Sheristadar, and that of Government for the appointment of Tahsildar and Deputy Tahsildar. Tahsildars and Deputy Tahsildars can be dismissed only under the orders of Government, but Collectors can, subject to appeal to the Board, suspend such officers for misconduct for a term not exceeding six months or order transfers involving loss of salary but not degradation of rank. Collectors may dismiss Talook Sheristadars on their own authority, reporting that they have done so to Government, in order that the sanction given to their employment as Magistrates may be revoked. Collectors are competent to inflict fines upon any of their subordinates, but the amount cannot exceed Rupees 10 without the previous sanction of the Board. The law in relation to the superior revenue officers is shown under the heads of "Revenue Officers" and "Sub-Collector" in Vol. II, App. LIV.

179. The Sub-Collectors, who are also Magistrates, have generally larger charges, and are more independent than any other Assistants to the Collector. Their establishment consists of a Sheristadar, clerks and servants.

180. The Head Assistant Collectors hold independent charge generally of two or three talooks.

181. Two of the Special Assistants assist the Agents to the Governor in Vizagapatam and Ganjam.

182. When an Assistant Collector has passed a certain examination in law and languages he is said to be a Passed Assistant, and may be placed in charge of one or two talooks. Until he passes he is attached to some superior officer to learn his work.

183. There are twenty-one District Treasuries, for each of which a Deputy Collector is required, as the average revenue is Rupees 37,55,828 as already shown, and the average disbursements considerable. The Deputy Collectors on general duties assist the Collectors and their Assistants in revenue administration and magisterial work, except the Deputy Collector of Madras who is not a Magistrate. There are fifty permanent Deputy Collectors graded on the scale shown at foot.[4] Temporary Deputy Collectors are also employed whenever necessary.

184. TALOOK OFFICERS.—The district is subdivided into talooks under a Tahsildar. The number of talooks in a district, omitting the Madras and Neilgherry districts, varies from three to ten or more. In Vizagapatam there are only two talooks including Palcondah where there is no Tahsildar. An average talook is 700 square miles in extent, contains 200 villages, a population of about 150,000, and yields land-revenue of about Rupees 2,50,000. Talooks are divided into five grades according to their importance.

185. The Tahsildar's establishment consists of a Sheristadar, Clerks, Revenue Inspectors, and servants. The Sheristadar is in immediate charge of the Talook Treasury, as also of accounts, abstracts, registers, and periodical returns. The Clerks, of whom there are eight or nine, prepare the accounts, bills, abstract cultivation statements, season and other returns, village abstracts of demand, collection, and balance, settlement accounts, registers, &c., attend to correspon-

[4] STAFF OF DEPUTY COLLECTORS.

1 on 700 rupees a-month.
4 on 600 do. do.
8 on 500 do. do.
17 on 400 do. do.
12 on 300 do. do.
8 on 250 rupees a-month.
—
50 on 19,500 do. or Rupees 2,34,000 a-year.
—

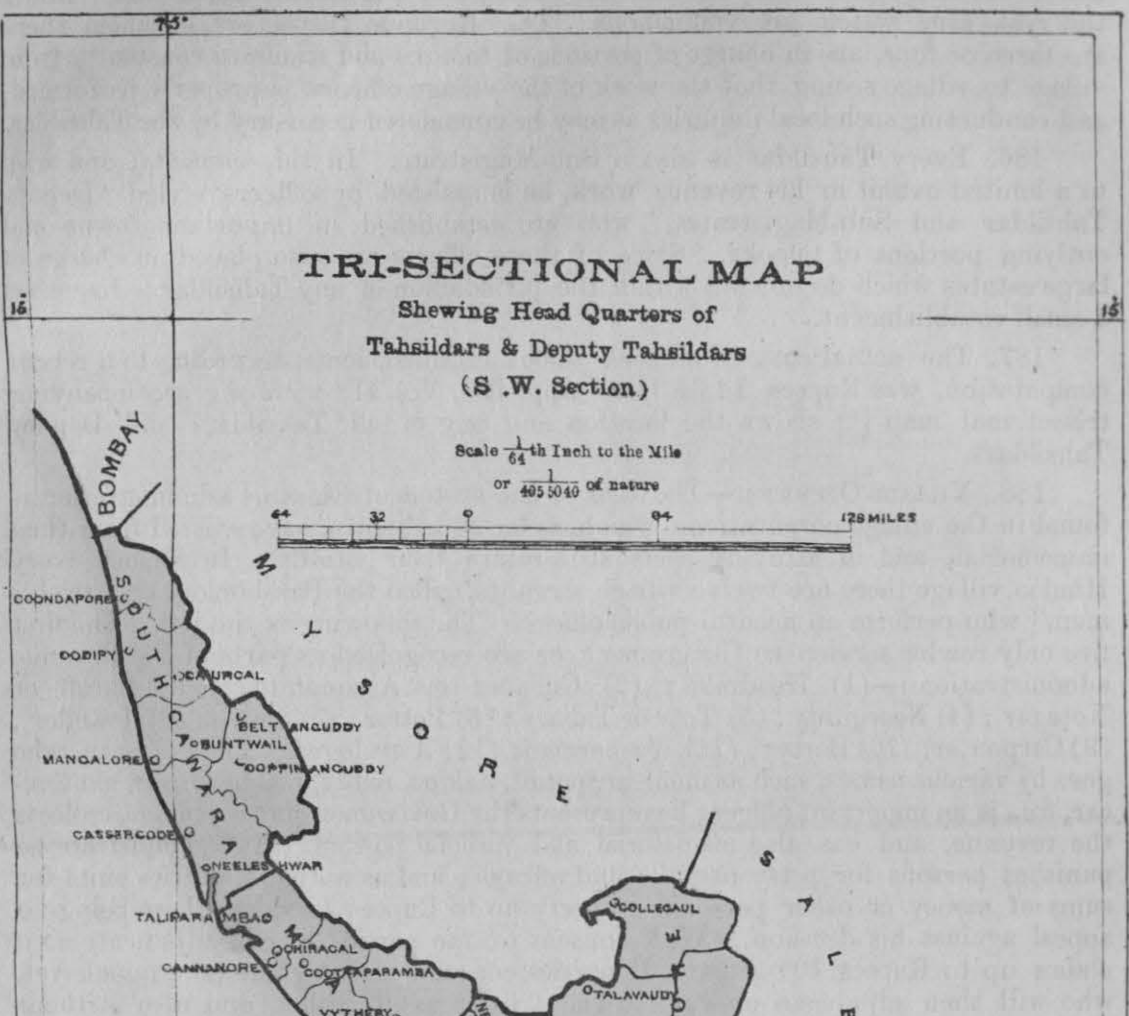
dence, aid in magisterial work, and have charge of the office records which under the ryotwarry system are voluminous. The Revenue Inspectors, of whom there are three or four, are in charge of portions of talooks and itinerate constantly from village to village seeing that the work of the village officers is properly performed, and conducting such local inquiries as may be considered necessary by the Tahsildar.

186. Every Tahsildar is also a Sub-Magistrate. In this capacity, and also to a limited extent in his revenue work, he is assisted by officers styled "Deputy Tahsildar and Sub-Magistrates," who are established in important towns and outlying portions of talooks. Some of these officers are also placed in charge of large estates which do not fall within the jurisdiction of any Tahsildar. Each has a small establishment.

187. The actual cost of all these talook establishments, according to a recent computation, was Rupees 14,74,344. App. LV, Vol. II, with the accompanying trisectional map [5] shows the location and pay of all Tahsildars and Deputy Tahsildars.

188. VILLAGE OFFICERS.—The basis of the system of Revenue administration is found in the village corporations, which, as far as is known, have existed from time immemorial, and in many respects still retain their vitality. In almost every Hindoo village there are twelve village servants, called the Barabooloty or "twelve men," who perform all needful public offices. The following is the list. The first five only render service to Government, or are recognized as parts of the Revenue administration :—(1) Headman ; (2) Curnum or Accountant ; (3) Shroff or Notagar ; (4) Neergunty ; (5) Toty or Taliary ; (6) Potter ; (7) Smith ; (8) Jeweller ; (9) Carpenter; (10) Barber; (11) Washerman; (12) Astrologer. The headman, who goes by various names, such as monigar, potail, naidoo, reddy, peddacaupoo, nautamcar, &c., is an important officer; he represents the Government in the village, collects the revenue, and has also magisterial and judicial powers. As a Magistrate he punishes persons for petty assaults and affrays; and as a Judge he tries suits for sums of money or other personal property up to Rupees 10 value, there being no appeal against his decision. With consent of the parties he can adjudicate civil claims up to Rupees 100 value. If parties consent, he can summon a punchayet, who will then adjudicate on suits without limit as to value, and also without appeal. The headman is generally one of the largest landholders in the village, and as a rule exercises much influence over the inhabitants. He is the representative of Government in the village, and the collector in the first instance of the revenue. Acting as a Judge he is styled moonsif. In some cases the custom of the place separates the moonsifship from the monigarship, and sometimes more than one monigar is appointed for a village. The duties of the headman are defined in Regulation XI of 1816, but its interpretation in reference to his police duties has caused doubts. The curnum is the village accountant and is a very important

[5] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN THE TRISECTIONAL MAP SHOWING HEAD-QUARTERS OF TAHSILDARS AND DEPUTY TAHSILDARS *.—Addanki, Ádóni, Álatúr, Allúr, Álúr, Amalápuram, Ambásamudram, Anakápalle, Anantapur, Anjengo, Aravakurchi, Arcot, Arkónam, Árni, Aska, Atmakúr, Atúr, Avanáshi, Badvél, Balliguda, Bandar, Bantvál, Bápatla, Bellary, Berhampore, Bezváda, Bhadráchalam, Bhaváni, Bhímavaram, Bhuvanigiri, Bimlipatam, Bobbili, Bukkapatnam, Calicut, Canara, Cannanore, Cauvery, Chandragiri, Cherpalcheri, Chicacole, Chidambaram, Chingleput, Chinnammanúr, Chípurupalle, Chirakal, Chittoor, Chitvél, Cocanada, Cochin, Coimbatore, Coleroon, Conjeeveram, Coondapoor, Coonoor, Cuddalore, Cuddapah, Cumbum, Darsi, Denkanikóta, Dhárápuram, Dharmapuri, Dharmavaram, Dindigul, Ellore, Erode, Gajapatinagar, Ganjam, Gingee, Godávari, Golgonda, Goomsur, Gooty, Gúdalúr, Gudiváda, Gudiyátam, Gundlakamma, Guntúr, Harpanahalli, Hindupur, Hospet, Huvinahadgalli, Ichápur, Jaggayapet, Jammalamadugu, Jeypore, Kadiri, Kálahasti, Kallakurchi, Kampli, Kandukúr, Kangudi, Kángyam, Kanigiri, Karúr, Kárvetnagar, Kásaragód, Kávali, Kílpaluvúr, Kistna, Kodaikánal, Koilkuntla, Kollegál, Krishnagiri, Kulasekharapatnam, Kulitalai, Kumbakónam, Kurnool, Kúttaparamba, Lálgudi, Lángulya, Madakasíra, Madanapalle, Madura, Madurántakam, Manapárai, Mangalagiri, Mangalore, Mannárgudi, Márkápur, Máyavaram, Melúr, Méttupálaiyam, Musiri, Námakal, Nandigáma, Nandikótkur, Nandyál, Nánguneri, Nannilam, Náráyanavaram, Narsannapet, Narsápur, Narsaraopet, Negapatam, Nellakóta, Nellore, Nílgiri, Núzvíd, Ongole, Ootacamund, Otapidáram, Owk, Palamcottah, Pálár, Pálkonda, Palladam, Palmanér, Palnád, Palni, Panruti, Parlákimedi, Párvatipur, Pattikonda, Patukóta, Peddápuram, Pennér, Penukonda, Perambalúr, Periyakulam, Periyár, Perundurai, Pílér, Pithápuram, Podili, Polláchi, Pólúr, Ponáni, Ponniár, Poonamallee, Proddutur, Pudukóta, Pulivendla, Pullampet, Punganúr, Purushottapur, Pyápali, Quilandi, Rádhápuram, Rajahmundry, Rámachandrapuram, Rámallakót, Ramnad, Rápúr, Ráyachóti, Ráyadrug, Répalle, Rushikulya, Saidápet, Salem, Sáliyamangalam, Sálúr, Sankaranainárkoil, Sankaridrug, Sarvasiddhi, Sattenapalle, Shevaroy Hills, Shiyáli, Siddhavattam, Siruguppa, Sirvel, Sómpet, Suradá, Tadpatri, Tálavádi, Taliparamba, Támbraparni, Tangachéri, Tanjore, Tanuku, Tekkali, Tenkarai, Tenkási, Tindivanam, Tinnevelly, Tiruchengód, Tirukoilúr, Tirumangalam, Tirupati, Tirupatúr, Tirutani, Tiruturaipúndi, Tiruvadamarudúr, Tiruvallúr, Tiruvannámalai, Titagudi, Tranquebar, Trichinopoly, Tuticorin, Udamalpet, Udayagiri, Udipi, Ulundurpet, Uppinangadi, Uravakonda, Úttankarai, Vaigai, Vallam, Vamsadhára, Vániyambádi, Vartiráyiruppu, Váyalpád, Vayitri, Vellore, Venkatagiri, Vetatapudiyangádi, Villupuram, Vinukonda, Virudupati, Vizagapatam, Vizianagram, Wálajápet, Wandiwash, Yemmiganúr, Yernagúdem.


TRI-SECTIONAL MAP
Shewing Head Quarters of
Tahsildars & Deputy Tahsildars
(S .W. Section)
Scale 1/64 th Inch to the Mile
or 1/4055040 of nature
64 32 0 64 128 MILES
BOMBAY
SOUTH CANARA
MYSORE
SALEM
MALABAR
COCHIN
TRAVANCORE
TRICHINOPOLY
TANJORE
COONDAPORE
OODIPY
BELTANGUDDY
BUNTWAIL
MANGALORE
CASSERCODE
NEELESHWAR
TALIPARAMBA
CHIRACAL
CANNANORE
COOTAPARAMBA
VYTHERY
QUILANDY
CALICUT
TIROORANGAUDY
VETATAPOODIYANGADY
PONNANY
Ponnany R.
CHAUVACAUD
PALGHAUT
ALATORE
COLLEGAUL
TALAVAUDY
SUTTIMUNGALAM
BHAWANY
COONOOR
ERODE
METTAPOLLIEM
PEROONDORAY
COIMBATORE
CAUNGYAM
PULLADAM
AVANASHY
CAROOR
ARAVACOORCHY
DHARAPOORAM
POLLACHY
OODAMALPETT
PULNEY
VEDASUNDOOR
DINDIGUL
Periyaur R.
COCHIN
KODAIKARNAL
NELACOTTAH
PERIYACOLAM
MELOOR
COGI
LAMPUTTYC
CHINNAMMANORE
MADURA
TIROOMUNGALAM
SIVAGUNGA
COTTAYAM
VARTIRUYIR
SREEVILLIPOOTTORE
VIROODHOOPUTTY
Veigay R.
SAUTORE
RAMNAUD
SUNKARANENARCOIL
VILLAUTICOLAM
OTTAPIDAURAM
TUNCACHERRY
TENKAUSY
TUTICORIN
AMBASAMOODRAM
TINNEVELLY
PALAMCOTTAH
Tambrapurny R.
ANJENGO
SREEVEICOONTAM
STEENKARAY
NANGOONAIRY
KOOLASYEKHARAPATNAM
RASHAUPOORAM
LACCADIVE ISLANDS
MALDIVE ISLANDS
Scale 1/120 th Inch to the Mile
or 1/7603200 of nature
75°
15
10


TRI-SECTIONAL MAP
Shewing Head Quarters of
Tahsildars & Deputy Tahsildars
(Central Section)
Scale 1/64th Inch to the Mile
or 1/4055040 of nature
64 32 0 64 128 MILES
NIZAMS DOMINIONS
GODAVERY
KISTNA
KURNOOL
BELLARY
CUDDAPAH
NELLORE
NORTH ARCOT
CHINGLEPUT
SOUTH ARCOT
SALEM
TRICHINOPOLY
TANJORE
MYSORE
COIMBATORE
MADURA
BOMBAY
MADRAS
BEZWADA
GOONTOOR
ONGOLE
CUMBUM
NELLORE
CUDDALORE
SALEM
TRANQUEBAR
POODOOCOTTAH STATE
Mouths of the Kistna R.
Goondlacumma R.
Pennair R.
Palaur R.
Ponnaur R.
Vellaur R.
Coleroon R.
Cauvery R.
80°
15
10
16


TRI-SECTIONAL MAP
Shewing Head Quarters of
Tahsildars & Deputy Tahsildars
(N. E. Section)
Scale $\frac{1}{64}$th Inch to the Mile
or $\frac{1}{4055040}$ of nature
64
32
0
64
128 MILES
85°
20°
15°
CENTRAL PROVINCES
BENGAL
GANJAM
VIZAGAPATAM
GODAVERY
KISTNA
NIZAMS
DOMINIONS
BALLIGOODA
OODAYAGHERRY
GOOMSOOR
SOORADAH
BISSEMCUTTACK
ASKA
POOROOSHOTTAPORE
CHILKA LAKE
GANJAM
Rooshicoolya R.
BERHAMPORE
ICHAPORE
RAMACHERRY
SOMPETT
NAVARUNGAPORE
ROYAGOODA
GOONAPORE
COTTAPAUD
JEYPORE
TEKKALY
PARLAKIMEDY
KORAPUTT
PARVATIPORE
POTTINGHY
SAULOOR
BOBBILY
PALCONDAH
NARSANNAPETT
MULKANGHERRY
GUJAPATINUGGER
CHEEPOORPULLY
CHICACOLE
Vamshadhara R.
Langoolya R.
SRUNGAVARAPOOCOTE
VIZIANAGRAM
SIMLIPATAM
VEERAVILLY
ANKAPULLY
GOLCONDAH
VIZAGAPATAM
BHADRACHELLAM
SARWASIDDHY
GOKAVERAM
COTTAPULLY
TOONY
YELESHWARAM
RAGHOODEVAPOORAM
POLAVERAM
PITTAPORE
CHINTALARPOODY
RAJAHMUNDRY
PEDDAPOORAM
YERNAGOODEM
COCANADA
ELLORE
PINTAPADOO
RAMACHENDRAPOORAM
TANOOKOO
COTTAPETTAH
AMALAUPOORAM
BHEEMAVARAMO
NARSAPORE
SIVAGODE
Mouths of the Godavery River

ministerial officer. The accounts kept by him will be described hereafter. The shroff is found only in certain villages; his duty is to test the money paid in by villagers to the headman on account of Government. The neergunty has charge of the irrigation of village lands where there is irrigation from tanks or channels. Some villages, however, have irrigation but no neergunty, the work being done by the village peon or by the cultivators themselves. The village toty, otherwise taliary, vetty, or oograuny, is simply a village peon acting under the orders of the headman. This office is generally held by the lower class of the community. The taliary is sometimes a separate official acting in the capacity of watchman. The remainder on the list are the artizans necessary to the internal conduct of a village community. In the revisions of Governmental village establishments which will shortly be mentioned, considerable changes have been made even in the assignment of duties and names of the officials. The law in reference to village officers is shown in detail under the heads of "Curnum," "Village Headman," "Village Police," "Village Servants," and "Village Watchman," in Vol. II, App. LIV.

189. When village offices are hereditary, as is the case in most localities, heirs succeed in the usual course, under the terms of the native law of inheritance, which is modified only to the extent of precluding partition. In the case of offices other than those of headman, curnum, neergunty, vettian and toty, the villagers manage their own affairs, the parties filing suits if they please before the Collector under Regulation VI of 1831. In the case of the offices just mentioned the succession is regulated by the Collector. With reference to the rights and fitness of the several claimants to office, the native law of inheritance is attended to as far as is possible. Females and minors may in special cases succeed, appointing goomastas or proxies with the sanction of the Collector. Adoption is recognized or not recognized in the usual way under the law. If any person having an interest desires a more formal inquiry, he may file a suit under Regulation VI of 1831 before the Collector. This officer will then issue process to parties and witnesses and hold a quasi-judicial inquiry. Disobedience to the summons can be punished under sections 172 to 174 of the Penal Code. The Civil Procedure Act does not apply to cases tried in this way, and there is no law for awarding costs. The Government of India have exempted these cases from the Court Fees Act; stamps are therefore unnecessary. Section 3 of Regulation VII of 1828 gives Collectors power to revise the proceedings of their subordinates under this Regulation without limit of time; but three months has been fixed departmentally as the period for appeal. When a case is heard by a divisional officer, the parties may appeal to the Collector or to the Board direct, whichever they prefer. When the Collector has made a decision on appeal, this does not bar a further appeal to the Board of Revenue, or from them to the Government. There is no provision for enforcing orders passed under this Regulation, nor for ousting adverse occupants; but in practice the orders of the Tahsildar are not disobeyed. A Bill has been drafted to grant the requisite powers. The procedure throughout is somewhat informal, but the Regulation proposes rather to be a measure of State administration than of adjudication of private claims. Collectors are instructed to respect possession extending over more than three years against any ordinary claim on grounds of hereditaryship; though there is no objection to their putting on record a statement of opinion that in the event of the demise of the present occupant, the claimant will have a right to secure a reversion of the office. Collectors have the power of dismissing village officers for misconduct. The same questions then arise as in the case of succession by demise. An heir may succeed if in no way concerned in the offence; or if this arrangement is not practicable, a temporary appointment of a stranger may be made to last during the lifetime of the person dismissed. The Civil Courts are forbidden by law to take cognizance of any questions of a nature provided for by Regulation VI of 1831. Curnums in zemindarries are provided for separately by Regulation XXIX of 1802, and placed under the jurisdiction of the Civil Court; they do not fall under Regulation VI of 1831 and the Collector does not regulate the succession to office.

190. The non-Governmental village servants are almost wholly paid by fees from the villagers direct. In some cases, however, where the Government have in former days given inam lands to such servants, these are continued. No new

grants or allowances are made by Government to such servants. The Governmental village servants are paid in some cases by the enjoyment of Government land rent free or on a trifling assessment called jody, in some cases by having assigned to them the State dues payable by some third person occupying land, in some cases by contributions of grain or money made by the villagers themselves irrespective of the land-revenue, and in some cases by salaries direct from Government. When land questions are involved in the emoluments of office, disputes are frequent and are decided usually by suit before the Collector under Regulation VI of 1831. The most frequent cause of dispute is the question whether the village officer's case falls under the first or the second of the heads given above; that is to say whether he is to be put in possession of the land assigned to the office, or whether he is merely to be given the right to receive the Government assessment money from the hands of the occupant. This will depend very much on the terms of the original grant, which was often made before the feisal or original settlement of the British Government, and is thus involved in obscurity. The general question as to whether the land itself or the assessment only constitutes properly the emoluments of a village servant, has been much discussed; it has been decided in practice to adjudicate each case on its merits and with regard to its past history as far as this can be ascertained. Regulation VI of 1831 renders it illegal to make any formal alienation of inam emoluments; until recently however the law was frequently evaded. The present cost of the village establishments in land and fees is about 48 lakhs of rupees.

191. The system of payment by inams from Government or by merahs from villagers has for some years been regarded as objectionable, and the tendency has been to substitute salaries from Government in all cases. Act IV of 1864, which may be applied on occasion to different districts, was passed to enable the Government when they took over the entire charge of the village servants to recover from the villagers, in the form of a land-cess not exceeding one anna in the rupee on their assessment, the amount of the fees which they originally contributed in private. The inam rules, which may be applied from time to time, provide for raising the beneficial rate of assessment on lands hitherto inam, while withdrawing some of the State claims on the lands and giving an absolute ownership in them to the present occupant. By a combination of these two measures the Government have had it in their power to make a complete revision of the village establishments in the direction of substituting stipends for other forms of emolument. The opportunity has been taken to revise the establishments as well as the emoluments, and to get rid of irregular claimants to the latter. The revision of village establishments is being carried out in a detached way in different localities; it has hitherto followed the operations of the Revenue Settlement Department, but in future it is to be carried out 'pari passu' with the settlement. The salaries in the revised establishments are paid from a fund called the Village Service Fund. To this are credited all the new quit-rents which come in from the enfranchised lands, formerly inam and paying little or nothing; the proceeds of the cess under Act IV of 1864 where imposed; and contributions made by Government in lieu of lands and fees formerly appropriated to this purpose but since resumed by Government. The practical effect of the revision may be seen from the two following examples. A village servant is, we will suppose, in the enjoyment of Government land; and his emolument consists in his paying no assessment on it or only a nominal jody. Under the revision he will receive a salary instead of this emolument. Special terms will be made with him as to the land. The terms will be that Government will make him proprietor of the land, which will thenceforward have no further connection with the office, and be an alienable piece of property belonging to the individual; while the Government will thenceforward tax the land with land-revenue, amounting however not to the full amount, but only five-eighths of the amount. The special terms are granted in consideration of the long period during which these lands have been looked on by the people as quasi-private property. A village servant again, we will suppose, derives his emoluments from the payment to him by a third person of the assessment properly payable to Government; that is to say, the village servant is paid by what is called Teerveymanyam and not by what is called Nilamanyam. In this case, if enfranchisement is applied, the occupying

ryot or third person continues to pay to the village servant in whose name the inam has been enfranchised the full assessment, and the inamdar pays to Government five-eighths assessment, keeping three-eighths; the ryot neither loses nor gains. Owing to illegal alienation, and to irregular applications of the Hindoo law of partition of property on demise, many superfluous claimants to village service emoluments have arisen. In some localities a number of persons divide the emoluments in this way, one of the number only being the actual working officer. When such persons can show a long prescriptive enjoyment of their emoluments, however erroneously acquired in the first instance, they are allowed to enfranchise on five-eighths assessment. The rules indeed have been very liberally interpreted, and in many cases even a single year's possession has been respected and the possessor allowed to enfranchise. The fees from villagers are, as has already been said, no longer paid in these cases; the Government make good the fees to the officers in the salaries which they give them, and take from the villagers a one-anna cess to recoup themselves. In revising village establishments small villages are clubbed together in order to reduce the establishment where necessary with reference to the assets available for payment, but care is taken that the clubbing is not carried too far, so as to cause inconvenience to the communities concerned. A resident moonsif and a taliary are provided for each village, and the wishes of the villagers are as far as possible consulted in carrying out the clubbing. In the revision, the number of servants is generally reduced, but their remuneration is, as a rule, improved. When revision has fully taken place it is evident that there will remain of the numerous land disputes now occurring under Regulation VI of 1831 only a few in connection with the artizan non-Government village offices. Offices will however still remain hereditary where they are so at present, and cases of succession will still be triable under the Regulation. The districts in which the revision has been already carried out, or in which it is now being introduced, are Godavery, Kurnool, Tinnevelly, Salem, Chingleput, Nellore, Trichinopoly, Kistna, Neilgherry, Cuddapah, and South Canara. Revision will shortly be carried out in Ganjam, Bellary, North Arcot, and Coimbatore. In Tanjore the village establishments were to a certain extent revised in 1867, but the Village Cess Act, No. IV of 1864, was not brought into force, the existing assets of the district being sufficient. In the remaining districts the old system still continues. The rates of salary allowed in the revision are variable, but those shown at foot [6] for Kurnool, the Godavery, and Trichinopoly, may be taken as specimens. The rates are per annum.

192. LAW.—The legal provisions relating specially to the Board of Revenue and apart from their appellate and controlling powers in different subjects are the following. Madras Regulation I of 1803—A regulation for defining the duties of the Board of Revenue, and for determining the extent of the powers vested in the Board of Revenue. 24 and 25 Vic., c. 54 (A.D. 1861), an Act to confirm certain appointments in India, and to amend the law concerning the Civil Service there.

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[6] RATES OF PAY FOR VILLAGE SERVANTS IN THREE DISTRICTS.

Description of servants.	Kurnool.	Godavery.	Trichinopoly.
Vettians ...	RS. Up to 750 ... 1; " 1,500 ... 2; " 4,000 ... 3; Above 4,000 ... 4 } at 48 rupees for each Vettian.	RS. Up to 1,000 ... 1; " 3,000 ... 2; " 6,000 ... 3; " 9,000 ... 4; Above 9,000 ... 5 } at 48 rupees for each Vettian.	36 rupees for each Vettian.
Neergunties ...	Rupees 3, 4, and 5	48 rupees each	......
Taliaries ...	Rupees 48 for Taliaries and Rupees 60 for Ghat Taliaries.	For 714 villages at one Taliary each, and for 29 villages at 2 Taliaries for each were allowed. } Rupees 48 each man.	36 rupees each.

Under this statute the Members of, and Secretaries to, the Board of Revenue, must be Covenanted Civil Servants. Madras Act II of 1883, an Act to provide for the conduct of business by the Board of Revenue. The law in detail relating to the Board of Revenue is shown under that heading in Vol. II, App. LIV.

193. The general powers, duties, &c., of Collectors of districts are contained in the following enactments. 33 Geo. III, c. 52, s. 137 (1792-93 A.D.), an Act for continuing in the East India Company for a further term the possession of the British territories in India, together with their exclusive trade, under certain limitations; for establishing further regulations for the Government of the said territories and the better administration of justice within the same; for appropriating to certain uses the revenues and profits of the said Company; and for making provision for the good order and government of the towns of Calcutta, Madras, and Bombay; by this, Collectors are forbidden to trade. Madras Regulation II of 1803, a regulation for describing and determining the conduct to be observed by Collectors in certain cases; this describes the general powers, duties and procedure of Collectors. India Act XVIII of 1850, an Act for the protection of officers acting judicially; Collectors are specified. 24 and 25 Vic., c. 54 (A.D. 1861), an Act to confirm certain appointments in India, and to amend the law concerning the Civil Service there; under this statute, Collectors must be Covenanted Civil Servants. India Act XIX of 1841, s. 5 (Wrongful Possession in case of Succession); India Act XXXIV of 1858, s. 24 (Lunacy, Supreme Courts); India Act XXXV of 1858, ss. 3, 11–15, 18 (Lunacy, Mofussil Courts); India Act XXIII of 1863, ss. 1–5 (Claims to Waste Lands); India Act VII of 1870, ss. 19 (ix), 23 (Court Fees); India Act X of 1870, s. 59 (Land Acquisition); India Act XXIII of 1871, ss. 5, 8 (Pensions); India Act XXVI of 1871, ss. 4, 18 (Advances for Agricultural Improvements); India Act III of 1873, s. 35 (Civil Courts, Madras); India Act I of 1878, s. 12 (Opium); India Act VI of 1878 (Treasure Trove); India Act VII of 1878, ss. 10 (*a*), 16, 30 (Forests); India Act VIII of 1878, ss. 8, 61 (Sea Customs); India Act I of 1879, s. 3 (8) (Stamp); India Act VI of 1879, s. 5 (Preservation of Elephants); India Act X of 1882, ss. 320 (*c*), 321–325 (Criminal Procedure); India Act XIV of 1882, ss. 320–325, 424, 539 (Civil Procedure); Mad. Act II of 1864 (Recovery of Arrears of Revenue); Mad. Act III of 1864 (Abkarry); Mad. Act VIII of 1865, ss. 17, 18, 41, 45, 60 (Recovery of Rent); Mad. Act I of 1870, ss. 8, 16–19 (Canal Tolls and Ferries); Mad. Act VI of 1871, ss. 3–10, 26–31 (Excise Duties on Salt); Mad. Act III of 1878 (License Tax); Mad. Act V of 1879 (Abkarry Laws Amendment); Mad. Act I of 1882, s. 31 (Salt); Mad. Reg. I of 1803, s. 48 (Board of Revenue); Mad. Reg. II of 1803 (Collectors); Mad. Reg. V of 1804, ss. 20–22 (Court of Wards); Mad. Reg. I of 1805, ss. 4, 11, 13 (Salt); Mad. Reg. XII of 1816 (Disputed Boundaries); Mad.

Description of servants.	Kurnool.		Godavery.		Trichinopoly.	
		RS.		RS.		
Moonsifs or Monigars.	Up to 5,000	60	Up to 600	18	42 rupees for each Monigar without reference to the revenue of the village.	
	" 7,000	84	" 1,000	24		
	" 9,000 and upwards.	96	" 1,500	36		
		120	" 3,000	48		
		144	" 5,000	60		
	1 Reddy for Nundiaul Village	240	" 7,000	72		
	1 Town Moonsif ...	300	" 9,000	96		
			Above 9,000	120		
			" 22,000	144		
		RS.		RS.		RS.
Curnums.	Up to 1,000	60	Up to 1,500	60	Up to 1,000 ...	72
	" 1,500	72	" 2,000	84	" 2,000 ...	84
	" 2,000	84	" 3,000	96	" 4,000 ...	96
	" 3,000	96	" 4,000	108	Above 4,000 ...	108
	" 4,000	108	" 5,000	120		
	" 5,000	120	" 6,000	132		
	" 6,000	132	" 7,000	144		
	" 7,000	144	" 8,000	156		
	" 8,000	156	" 9,000	168		
	" 9,000	168	Above 9,000	216		
	Above 9,000	180	" 22,000	240		

Reg. IX of 1822 (Malversation); Mad. Reg. VI of 1831, ss. 2, 4–6 (Hereditary Offices); Mad. Reg. X of 1831, s. 3 (Minors' Estates). The detailed law relating to Collectors is shown under the head of "Collector of District" in Vol. II, App. LIV. The only enactments having reference to Sub and Assistant Collectors are Madras Regulation VII of 1828 and the statute 24 and 25 Vic., c. 54 (A.D. 1861). Under section 3 of the former, the official title of which is "A Regulation for declaring the powers of Subordinate and Assistant Collectors in charge of particular divisions of districts, and for facilitating proceedings under Regulation IX of 1822," the powers of a Collector are exerciseable by Subordinate and Assistant Collectors. Under the latter, these officers must be Covenanted Civil Servants. The law in detail relating to the superior revenue officers is shown under the heads of "Revenue Officers" and "Sub-Collector" in Vol. II, App. LIV.

194. The law relating to the appointment, powers and duties of Deputy Collectors is contained in India Act VII of 1857, an Act for the more extensive employment of uncovenanted agency in the Revenue and Judicial Departments in the Presidency of Fort St. George. The law in detail is shown under the head of "Deputy Collector" in Vol. II, App. LIV. India Act VII of 1839 deals exclusively with the duties of Tahsildars in connection with the sale law. The detailed law in reference to Tahsildars is shown under the head of "Tahsildars" in Vol. II, App. LIV. The only enactment specially mentioning Sheristadars and Deputy Sheristadars is Regulation VII of 1828. Under section 4, they may be employed to investigate cases of malversation in revenue affairs of a petty nature. The law in detail on the subject is given under the heads of "Sheristadars" and "Deputy Sheristadars" in Vol. II, App. LIV.

195. The law relating to village headmen is given in the following. Madras Regulation XI of 1816, a Regulation for the establishment of a general system of police throughout the territories subject to the Government of Fort St. George; sections 8, 9, 10, 11, 13, and 14 contain the powers and duties of village headmen in criminal cases; Madras Regulation IV of 1821, a Regulation for giving greater efficiency to the system of police established in the provinces subordinate to the Presidency of Fort St. George; under section 6, heads of villages are granted power to punish petty thefts; India Act I of 1871, the Cattle Trespass Act: under section 6, the heads of villages are ex officio the keepers of village pounds, and are public servants within the meaning of the Indian Penal Code. The judicial powers of village headmen as Village Moonsifs and the procedure to be observed by them in trying petty civil suits are given in Madras Regulation IV of 1816, a Regulation for declaring the head inhabitants of villages to be Moonsifs in their respective villages, to hear and decide civil suits for sums of money, or other personal property, to a limited amount, and for defining their jurisdiction. The detailed law relating to Village Headmen is shown under the head of "Village Headman" in Vol. II, App. LIV. The enactments following relate to the office and duties of the Village Curnum or Accountant:—Madras Regulation XXV of 1802, a Regulation for declaring the proprietary right of lands to be vested in individual persons, and for defining the rights of such persons, under a permanent assessment of the land revenue in the British territories subject to the Presidency of Fort St. George; under section 11, the Zemindars or landholders have to support the regular and established number of Curnums in the several villages of their respective zemindarries. Madras Regulation XXIX of 1802, a Regulation for establishing the office of Curnum, and defining the duties of the said office in the British territories subject to the Presidency of Fort St. George. Madras Regulation IV of 1816, sections 10, 21, 24, 30, 31, 39; under this Regulation, the official title of which is given in the previous paragraph, the Curnum has to assist the Village Moonsif in the trial of civil suits. Madras Regulation V of 1816, sections 4, 8, 10 and 20, contains the duties of Curnums in connection with the decrees of village punchayets. The official title of the Regulation is, a Regulation for authorizing Village Moonsifs to assemble village punchayets for the adjudication of civil suits for sums of money or other personal property, without limitation as to amount or value, within their respective jurisdictions, and for defining the powers and authority to be vested in such village punchayets. The detailed law in reference to Village Curnum is shown under the head of "Curnums" in Vol. II, App. LIV. There is no law specially relating to the remaining classes of village officers, viz., the Shroff or Notagar,

Neergunty and Toty or Taliary. Section 7 of Madras Act IV of 1864, an Act for the levy of a cess in lieu of village-service fees, gives a list of village officers to whom the Act applies. Under this Act, a money cess for the payment of village servants employed on Revenue and Police duties is imposed in lieu of the fees in money and kind payable by the people towards the maintenance of these village servants. The law regarding the composition, jurisdiction, and procedure of village punchayets is contained in Madras Regulation V of 1816 and India Act VIII of 1840. The detailed law relating to village servants generally is shown under the heads "Village Police," "Village Servants," and "Village Watchman" in Vol. II, App. LIV.

LAND REVENUE ACCOUNTS AND RETURNS.

196. INTRODUCTION.—Though land revenue accounts and returns are not the whole of the system of accounts and returns, especially in the huzoor or Collector's office, yet they form a great part of it, and their method must be here explained. There is no manual for huzoor accounts and returns, but the Board and the Accountant-General prescribe forms from time to time. Many of the Accountant-General's forms are also to be found in the Account Code. The Board publish yearly lists of district returns due to them; first arranged by subjects, secondly posted again in the form of a daily calendar. The Accountant-General also publishes a similar list of returns due, but does not post it in the form of a calendar. For the talooks or tahsildarries and the villages, there are two published manuals.[1] The law relating to revenue accounts in the Presidency is contained in the following:—Madras Act II of 1864, s. 45 (Recovery of arrears of revenue); Madras Regulation XXV of 1802, s. 9 (Revenue settlement); Madras Regulation II of 1803, ss. 13–31, 38–44 (Collectors). The law in detail is shown under the heads of "Curnums" and "Revenue Accounts" in Vol. II, App. LIV.

197. HUZOOR.—The accounts kept at the huzoor are purely treasury accounts, that is to say relating to cash received and expended. The most important account kept is the daily cash-book, on either side of which are posted as they occur and in order of recurring every payment made into the huzoor treasury, and every payment disbursed out of it. Against each item is entered the account-head or sub-head under which it will be included in making up the accounts under subjects; such account-heads and sub-heads coincide with the budget-heads and sub-heads so as to preserve uniformity throughout the financial system. The bulk of the receipts

[1] SKETCH HISTORY OF CHANGES IN REVENUE ACCOUNTS.—The old system of accounts in Government talook offices and villages was extremely complicated and cumbrous, and a thorough revision was begun in 1855 by Jeyaram Chetty, a well-known native revenue official, under the orders of Government. The changes then instituted were four in number—the substitution of the Dravidian vernaculars for Mahratta as the language of account; the substitution of paper for cadjan leaves as the vehicle for writing; the reform of the accounts themselves with a view to uniformity, brevity, and utility; and the introduction of printed forms. Till within a few years of that period, the superior native revenue officers were educated to read and write in Mahratta, but not in the vernaculars. Even correspondence between the Tahsildar and the Collector was in some districts conducted in Mahratta, and in the cutcherry of the Revenue Board all the accounts were kept in Mahratta. As one consequence of this, the village accounts originally written by the local accountants in the vernacular character had to be transcribed in full before they could be used in the talook or higher offices. The use of Mahratta as the language of the revenue accounts was discontinued by order of Government from the beginning of fusly 1265 (12th July 1856); the transcribing process therefore at the same time ceased. The cadjan or olay has been described in the foot-note on South Indian written characters in the article on Ethnology. For account purposes the curnums or accountants used a leaf about three-quarters of an inch in breadth, and of considerable length. A leaf of this form took only four or five lines of account, and the greater part of its length was wasted. After every four or five lines it was necessary to make a total and to carry this forward to another leaf. The leaves could not be ruled horizontally, and there was no opportunity for the introduction of headings governing a number of figures. The writing on this material moreover was always illegible to the superior native officials. With a view to these inconveniences paper had been used for village accounts for some time before the date mentioned in Canara, in the Northern Circars, in Mysore, and in the parts of Salem and North Arcot above the ghauts. The cadjan held its ground chiefly in the most southern districts. In all cases where Jeyaram Chetty's new forms of accounts were introduced, the curnums were required to write them on paper. The reform of the accounts and returns themselves consisted in that process which must always take place when order and system are applied by central authority to a subject hitherto unregulated in that manner. The revenue accounts answered their purpose, but they were deficient in economy of time and labor. The accounts first organized were the accounts of the villages, these being the basis of the whole system. A manual was published for village accounts in 1855. The revision of talook accounts followed, and a manual was similarly published for these in 1858. The manuals were enforced in all districts very shortly after their appearance. The introduction of forms with printed headings, &c., has taken place gradually from that time to the present. Since the date of the appearance of the two manuals, there have been various changes in the revenue administration, such as the introduction of the survey and settlement in several districts, the settlement of inam lands, the abolition of moturpha or profession-tax, the discontinuance of the oloogoo renting system in Tanjore and Tinnevelly, and of the amauny system in many districts, the abolition of garden rates, the creation of Local Fund circles, and the like. These seem to call for a further revision of the accounts, and the matter is now under consideration.

irrigation works in repair in the village. All these accounts which are twenty-four in number with twelve enclosures are prepared on paper and are written in the vernacular of the district, the figures however being in English.

202. The village accountant submits to the talook office, through the Revenue Inspector, a monthly cultivation statement; and direct to the talook office a register of births and deaths. A statement showing the demand, collection and balance on the 15th of every month is also sent to the talook with remittance of the money collected during the month; and upon this coercive process is commenced against the defaulters. A return showing the population of the village is forwarded once in five years. All other particulars required by the talook officials are taken direct from the original accounts of the village accountants, who are sent for for the purpose as required. Records of the village officials are, as a rule, delivered over at the end of the year to the talook, where they are kept in safe custody with other talook records, with the exception, however, of the permanent registers, which show respectively the particulars connected with the numbers of fields in the several villages and the actual cultivation for a series of years. In settled districts the survey and settlement registers and the survey maps are left in the custody of village officials.

INAM COMMISSION.

203. INTRODUCTION.—An inam means ordinarily a gift by a superior to an inferior.[1] In the south of India it is applied to the grant by the State (either originally or taking up a grant made by a village community) of the permanent right in one case to occupy land without paying rent to the State and in another case to collect Government assessment on land. The tenure though originally

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[1] SKETCH HISTORY OF INAMS AND THE INAM COMMISSION IN THIS PRESIDENCY—*Origin of inams.*—The origin of inam tenure can be traced to a very remote antiquity in Southern India. The gift of land is enjoined by the Hindoo shastras as the most meritorious of charities, and every Hindoo sovereign was therefore ambitious of distinguishing his reign by the extent and value of the lands he alienated in inam to the religious classes of the community. Inam grants were generally made in a solemn and impressive manner. They were engraved on copper-plates or slabs of stone and were declared to be irrevocable "so long as the sun and moon endure;" a heavy curse was invoked on those who disturbed the tenure, while great merit was ascribed to those who maintained and confirmed it. The grants made by the Hindoo sovereigns of Vijianugger, the rulers of the Pandyan dynasty whose seat was Madura, the Mahratta princes who latterly ruled at Tanjore, and the chieftains of Orissa who for many centuries ruled over the greater part of the Northern Circars, were of this religious nature. During the period of anarchy which followed the overthrow of the native dynasties and which continued, though in a less degree, after the establishment of the Mahomedan rule in Southern India, the power of granting inams for numerous miscellaneous purposes was assumed by various petty chiefs, officers of Government, and others, who alienated the revenues to a considerable extent. Numerous minor inams of this description were granted by zemindars, by fowjdars, and even by renters in the Northern Circars; while the poligars of the Ceded Districts and the southern provinces of the Presidency were even more liberal. Though it was not the principle of the Mahomedan rulers to regard alienations of revenue as permanent and binding, their policy with regard to inam tenures was practically lenient, and they generally respected the more ancient grants held by Brahmins and on account of temples. They also made liberal fresh grants, not only to their own immediate relatives and followers, the higher ranks of their civil and military officers and the religious classes of their own faith, but also to the Hindoos and their religious institutions. Thus the effect of the Mahomedan rule was to add greatly to the already existing large extent of land exempt from the payment of revenue. Another period of political confusion ensued during the latter part of the last century, when the supremacy in Southern India was contested between the British, the French, and the various local powers, which did not subside until the different treaties between the years 1750 and 1801 brought into the possession of the East India Company the whole of the present Madras Presidency. There is good reason to suppose that a large extent of land was granted as inam during this intermediary period by parties who had not the least authority to make such alienations. During the earlier years of British rule the Government of the day, following the custom of the country, adopted the practice of rewarding meritorious services by grants of jagheers, and thus many villages were alienated either in perpetuity or for a stated number of lives. This practice, however, gradually fell into disuse after the receipt of the despatches from the Court of Directors, dated 2nd January 1822 and 27th May 1829, in which they expressed their opinion of the superior propriety of money pensions to grants of land on all ordinary occasions, and directed that grants of land should be restricted to special cases. It was not unusual for the earlier collectors to grant inams of their own authority for various purposes, but the extent of land so alienated was comparatively trifling. (2) *Checks imposed by the British.*—The large sacrifice of State revenue involved in these arrangements attracted the attention of the British administration at a very early period, and caused a recognition of the importance of a general inquiry into titles to rent-free lands, coupled with the determination of a policy as to their continuance. The enactment of certain laws followed, and several orders were issued on the subject; these, however, led to no practical results. Steps were certainly taken to prevent the diversion of inams from the purposes for which they were granted in 1831, but it was not until 1845 that active measures were adopted to assert the reversionary rights of Government in property of this description. A prohibition was then issued against the devolution of inam property by adoption unless due notice to Government was given, and it was further proposed to limit the continuance of charitable grants to the lives of existing holders, on the ground that it was objectionable in principle that a portion of the land revenue should be set apart for the maintenance of a class of persons who had no legitimate claim on the State. The more liberal policy which was afterwards adopted in dealing with these tenures may be ascribed to the discussion regarding the inadvisability of disturbing long existing rights in landed property, which arose out of the insurrection of one Narsimha Reddy in the Cuddapah district. The rules at first laid down for dealing with claims to succeed to inam lands resulted in charging the district officers with numerous investigations of a complex and difficult character, which they found it difficult to deal with concurrently with their regular duties, and the state of uncertainty in

rent-free came in time in many cases to be qualified by the reservation of a portion of the assessable revenue, or by the exaction of all proceeds exceeding the intended value of the original assignment. Such charge was called 'jody,' that is to say favourable rent or quit-rent. Failure to pay any instalment of the 'jody' made the estate liable to attachment and sale by Government under the sale law. Jagheers are grants of lands or assignments of revenue made over to Mahomedans for personal benefit, or to servants of the State either unconditionally or on the condition of performing some public service as the levy and maintenance of troops or other specified duty; they are not in every case distinguishable from inams, and all are included for the purposes of the Commission under that head. For the purposes of the Commission, 'shrotriems' and 'agraharams' also are included under the head of inams; but the Government have recognized the right of the holders to the Government assessment only due on the lands, leaving the right of occupancy as it was at the time of settlement, any disputes regarding it being adjudicable by Civil Courts. Agraharams are given to a community of Brahmins of different sects. Shrotriems are given to particular Brahmin families. Inams may be for a field only, or for a village, or for a tract.

204. Taking these definitions, the inams recently in force, or which still subsist may be divided according to the object for which they are held into nine classes; thus, (1) those held for the support of religious institutions and for services connected therewith; (2) those held for purposes of public utility; (3) those held for the support of works of irrigation yielding public revenue; (4) those held by Brahmins and other religious classes for their personal benefit; (5) those held by the

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which this description of property was placed gave rise to a feeling of irritation and insecurity on the part of the holders. Finally the initiation of the general survey and revision of the assessment led to definite proposals being made to the Home Government for the appointment of a special commission to deal with tenures of this description in all their bearings. (3) *Institution of the commission.*—The Madras Inam Commission was accordingly established on the 16th November 1858 during the administration of Lord Harris, and Mr. G. N. Taylor, who was appointed Commissioner, shortly after proceeded to Bombay to learn, by personal conference with the authorities there, the details connected with the working of the inam commission in that Presidency and with the proposed plan of treating inam tenures for the future. In his reports Mr. Taylor proposed certain modes of procedure as to registration, the object of which was to carry it on through the district revenue agency, either under the orders of the Inam Commissioner or of a Member of the Board of Revenue. While the subject was under consideration, Sir Charles Trevelyan arrived and assumed the Government of Madras. The first question which engaged his attention was the settlement of the inams of the Presidency, and in his minute of the 13th May 1859 he propounded certain rules by which the principles enunciated by the Court of Directors were to be practically applied by the Inam Commissioner in the investigation upon which he was about to enter. His scheme was of a more liberal nature than that already proposed by the Madras Government. The basis of his proposals was that when it should be proved that land had for fifty years been in the possession of a person, or of those through whom he claimed, without the payment of land-tax, such length of possession should be held to be a good title to that land as inam, whatever might have been the origin of the possession. The entries in the revenue accounts were to be considered as sufficient evidence of possession without the production of other proofs, and where the failure of proof of fifty years' possession was owing only to lapse of time, the inamdar was to be allowed the same advantage as if possession had been proved for the full term. When the title to an inam based on length of possession was once established, it was then to be open to the holder to proceed as follows. In the case of an inam held for personal benefit he could either retain the inam according to his actual tenure subject to the liability of lapse and without the power of alienation; or he could enfranchise it, that is to say convert it into his own private property, by payment of a moderately substantial annual quit-rent or a single fixed commutation sum equal to so many years' purchase of the quit-rent. The quit-rent was to be estimated in terms particularly favourable to the inamdars in order to induce them to take advantage of the arrangement afforded. With regard to service inams, those that were attached to services still required were to be continued intact; but where the services were such that they could not be made available for any useful public purpose, the holder was to be compulsorily enfranchised, the value of the public claims on the land being calculated in the form of an annual quit-rent, still giving the holder the opportunity of commuting as above. As regards lands forming endowments of temples and mosques held in remuneration for services to be rendered therein, these were to be confirmed on their existing tenures, and to be resumable only when the object for which they were held had ceased to exist. All questions of disputed right between individuals relating to inams were to be settled according to the established forms in the ordinary courts of justice. The claims of Government upon inams previously to enfranchisement were to be determined by the officers of Government; but after enfranchisement the inams were to be in every respect under the protection of the courts of justice. (4) *Progress of the work.*—The operations of the late inam commission were conducted on these principles. Full information was prepared regarding the inams of each village by the talook and village officers, and the Deputy Collectors of the Commission inspected documents and took such further evidence as seemed proper, recording details in an English register in which the rate for enfranchisement was calculated and the acceptance or refusal of the inamdar recorded. These registers were subsequently forwarded to the Commissioner for review and confirmation and for the issue of a title-deed. The progress of the work was at first somewhat impeded by the ignorance and mistrust of the people, as the imposition of the additional quit-rent was viewed as merely a step in the direction of the full assessment of all inam property; but when the really liberal character of the settlement became generally known opposition ceased, and the operations of the commission proceeded with a rapidity hitherto unknown in the investigation of inam titles. (5) *Nature of subjects dealt with.*—The classes of inams dealt with will be seen in the text. In addition to dealing with inams proper, the commission investigated and disposed of a large number of anomalies which had for some time disfigured the revenue system of the Presidency. These latter measures have greatly tended to simplify the revenue administration of the several districts, and the discussion and final decision of many long-disputed rights between the Government and zemindars, between zemindars and inamdars and their tenants, have facilitated the revenue procedure of district officers in no small degree. (6) *Close of the commission.*—The inam commission continued as a separate department up to November 1869, when the bulk of the work having been completed, and under a pressing necessity for the reduction of imperial expenditure, it was resolved to abolish the department, and the Inam Commissioner was ordered to submit his general report. The work which remained to be done was entrusted to a Member of the Board of Revenue, who was appointed Inam Commissioner 'pro formâ' and to satisfy legal requirements.

families of poligars and those who filled hereditary offices of trust under former governments; (6) those held by the kinsmen, dependents and followers of former poligars and zemindars; (7) those connected with the former general police of the country; (8) those held for ordinary village revenue and police service; (9) those held by various descriptions of artizans for services due to village communities. (*Class* 1.)—A considerable portion of the inam tenures in the Presidency belongs to the religious institutions of the country, both Mahomedan and Hindoo. A recent computation gives the extent at 1,458,081 acres and the Government value or hypothetical assessment at Rupees 24,22,467. They are held either directly for the support of the institutions or for various services to be rendered therein. There is hardly a village of any importance in the country which does not possess its two temples, one to Vishnoo and the other to Shiva, and which has not also its tutelary village deity known under a variety of names. The inams of this description are therefore by far the most numerous, though the value of each taken by itself is often inconsiderable. With the exception of the pagoda of Juggernaut, which though not within this Presidency enjoys extensive inams in the district of Ganjam, there are very few temples of note in the Northern Circars, nor are there any of much celebrity in the Ceded Districts excepting the temples at Humpy and Sundoor. By far the larger portion of the inams belongs to the pagodas in the southern districts, such as Tripatty, Conjeeveram, Shreerungam, Rameswaram, and Madura. The valuable endowments attached to the different mattams, or spiritual headships of the three leading sects of Brahmins, are also included under this head, and are to be met with in nearly all the districts of the Presidency. There are besides throughout the country minor religious institutions not presided over by Brahmins, which enjoy inams of more or less value. These belong to byraghies and pandarams or religious mendicants, and jangams or priests of the Lingayet sect. The Mahomedan institutions are of a less varied character, and are generally in a decaying condition throughout the country. They consist chiefly of mosques or places of public worship, takeeyas or residences of fakeers, and dargahs or shrines of Mahomedan saints. The endowments attached to Christian churches are very few and occur only in the districts of Tinnevelly and Tanjore. (*Class* 2.)—A great variety of inams falls under Class 2, which embraces those held for the support of chuttrams, water-pandals, topes, nandavanams or flower-gardens, wells, ponds, tanks, bridges, village schools, and Veda patashalas or schools for teaching the Vedas. The extent was recently computed at 156,949 acres and the hypothetical assessment at Rupees 3,07,912. The object of the greater part of these grants is the provision of water and shade, both wants of the first importance in a tropical country. Bridges and village schools endowed with inams are few in number. Schools for teaching the Vedas are also not numerous and may be said to be falling into disuse. (*Class* 3.)—The inams of the third class, usually known as dasbandams, are confined chiefly to the Ceded Districts, the western portions of Goontoor, Nellore, North Arcot and Salem. The extent has been computed at 24,824 acres and the assessment at Rupees 1,40,715. They were granted as a recompense to private individuals who constructed tanks, wells, and river-channels by means of which the revenue of the State was augmented. The extent and value of the inam were in proportion to the capital expended on the work and the outturn in revenue. These grants are of two descriptions, "Khanda dasbandams" or inams given in specific localities, and "Shaumilaut dasbandams" or the allowance as inam of a certain proportion of each year's cultivation under the work in question. Inams of the latter description have not been brought on the inam registers as they had no locality. In all ordinary cases dasbandamdars are under the obligation of maintaining the works of irrigation in due repair. In some cases such a condition was either not attached to dasbandam inams or it had not been enforced for a long time. Such inams have been treated now as personal grants. In the Ceded Districts certain Wodder or tank-diggers held inams for the service of executing the ordinary repairs of large Government tanks. Under the present organization of the Public Works Department the Wodder occupied an anomalous position, and the services attached to their tenures were very inefficiently rendered. Their inams have consequently been enfranchised under the rules to be hereafter described. (*Classes* 4 *and* 5.)—The Bhattavritty and Khyraut inams held respectively by Brahmins and Mahomedans for subsistence form nearly one-half of the inams of

the Presidency. The extent has been given at 3,694,394 acres and the assessment at Rupees 54,89,928. As remarked in the sketch history the grant of inams to Brahmins is of very great antiquity. The Mahomedan rulers also freely alienated lands to the religious classes of their own faith. These grants may be said to represent the accumulated charities of the sovereigns and chiefs of the country from the most remote times. The inams held by the families of dispossessed poligars in the Ceded Districts and the Baramahaul, and of the ancient canoongos deshpandyas, and deshmookhs who have been permitted to enjoy certain lands free of all conditions of service to Government, have been all now treated as personal. When the polliems were reduced at the cession of the territories to the East India Company, certain pensions and inam lands were granted to the ex-poligars for their subsistence. Although a vague impression appears to have prevailed at the time that they were liable to be called out for police service during emergencies, the occasion for such services very seldom arose, and the inams have been practically enjoyed as personal. The canoongos were the provincial, and the deshpandyas, the district registrars or revenue accountants. The deshmookhs were chief officers of police and revenue, corresponding generally to zemindars. Their offices were abolished at a very early stage of the British administration, and the inams granted to or allowed to be held by them being of a personal character have been now treated like ordinary personal inams. (*Class* 6.)—The inams held under this class are considerable in number and value, chiefly in the Northern Circars and the southern polliems of Madura. Before their cession to the British these countries were mostly held by zemindars or poligars who exercised the powers of sovereignty within their limited estates. They alienated lands not only for the maintenance of Brahmins and of their own relatives and dependents, but also to a large number of their household servants and to numerous men of rank of their own caste. Whole villages were held on conditions of service, which was neither rendered nor called for under the British administration. Of this character were the bissoyes and doratanams in the hill tracts of Ganjam and Vizagapatam, the mokhausas of the Kistna district, the amarams of North Arcot, the oomlikays of Salem, and the jeevithams of Madura. All these tenures have been now converted into private property, a higher rate of quit-rent being charged on those which were held on the condition of actual service. Several miscellaneous inams, such as those held by deshayes, nauttar, chetties, and other heads of castes, and by certain classes of servants known as tambalas, anakalas, matapaties, and jeeyas in the Ceded Districts, the services connected with which have long ceased to be required, have been also converted into private property. (*Class* 7.)—The seventh class comprises the inams held by the cuttoobuddies, a class of peons who discharged police, military, and not unfrequently, revenue duties. They were called into existence by the poligars, who remunerated them by assignments of land and paid them batta also while on actual service; they were chiefly employed in the hilly and inaccessible parts of the country. On the introduction of the British rule they were generally left in quiet possession of their inams and were but seldom called out for duty. The inams of this class have now been all converted into private property. The cuttoobuddies are found in the greatest numbers in the Ceded Districts and North Arcot. (*Classes* 8 *and* 9.)—The inams embraced in the eighth and ninth classes are those of the village servants, revenue and police, and of the village artizans.

205. The general aims of the commission will be found described in the sketch history, and need not here be repeated.

206. Law and Rules.—The legal enactments met with in connection with inams, inamdars, and the commission are as follows. 32 and 33 Vic., c. 29 (A.D. 1869), an Act to render valid certain title-deeds for inam lands; India Act XXIII of 1871, section 7, an Act to consolidate and amend the law relating to pensions and grants by Government of money or land-revenue; India Act I of 1879, sections 4, 5, schedule II, No. 15 (*e*), an Act to consolidate and amend the law relating to stamps; Madras Act IV of 1862, an Act to exempt enfranchised inams from the operation of Regulation IV of 1831, and Acts XXXI of 1836 and XXIII of 1838; Madras Act II of 1864, an Act to consolidate the laws for the recovery of arrears of revenue in the Madras Presidency; Madras Act IV of 1864, an Act for the levy of a cess in lieu of village-service fees;

Madras Act VII of 1865, an Act to enable the Government to levy a separate cess for the use of water supplied for irrigation purposes in certain cases; Madras Act VIII of 1865, an Act to consolidate and improve the laws which define the process to be taken for the recovery of rent; Madras Act IV of 1866, an Act to exempt enfranchised village or other service inams, whether revenue or police, from the operation of Regulation VI of 1831; and Madras Act VIII of 1869, an Act to prevent doubts as to the true intent and meaning of certain words used in the title-deeds of inams heretofore furnished to inam-holders by the Inam Commissioner of the Madras Presidency, and to declare the true intent and meaning of Madras Acts IV of 1862 and IV of 1866. The detailed law is shown under the heads of "Inam Commissioner," "Inamdar," and "Inam lands" in Vol. II, App. LIV. Complete rules regulating the subject of inams are to be found in the Revenue Board's Standing Orders, 118–131.

207. CONSTITUTION OF THE DEPARTMENT.—What remains of the work of the commission is now presided over by the Director of Revenue Settlement and Agriculture acting as Inam Commissioner. The subordinate establishment employed under him for this work consists of 8 hands costing Rupees 359 per mensem besides a temporary establishment of 9 hands costing Rupees 161 per mensem. References are still frequently made by Collectors in inam matters, scattered cases still occur which have remained undisposed of owing to the absence of parties or other causes, and title-deeds for village service inams enfranchised on the revision of the establishments coincident with new settlement have to be issued.

208. PROCEDURE.—The initial principle in the procedure of the Inam settlement has been to treat as valid all those inams which were proved to have been uninterruptedly held and enjoyed as such for a period of fifty years, whatever may have been their origin, and irrespective of the question as to whether they were supported by sunnuds (deeds of grant) or not. Proof of possession was considered to be, in the absence of regular deeds and grants, proved by entries in the village and other authentic accounts of old date, and where, owing to exceptional circumstances, these were not forthcoming for the full term of fifty years, a valid title was conceded if evidence were adduced to show that absence of proof of longer possession was due only to lapse of time. Inams of more recent dates, unless supported by competent title and authority, were liable to be treated as invalid. In all inams, excepting a very small number which carried with them full powers of alienation under competent title, Government possessed a right of prospective reversion which could be legally asserted under various contingencies, for instance, proof of fraud or defective title, the extinction of the family of the inamdars in the case of hereditary grants, the termination of the last life in the case of grants restricted to a certain number of lives, the discontinuance of service in the case of grants held for various descriptions of service, &c. Besides determining the validity or invalidity of inams and following up such determination by a definite sanction or resumption of the grant, the Inam Commission offered to the holders of certain classes of inams the privilege of enfranchising their holdings from the prospective claims of Government, by agreeing to pay a reasonable quit-rent. The terms offered were, of course, less easier in the case of recent inams held on insufficient title; where fraud was discovered, no concession, or only a very slight one, was shown according as the then present claimants, or those through whom they claimed, were the parties concerned in the irregularity discovered. The practical bearings of the Inam settlement, conducted on the foregoing general principles, in reference to the several classes of inams enumerated in paragraph 204 have been as follows. Class 1 (Inams held for the support of religious institutions and for services connected therewith) and Class 2 (Inams held for purposes of public utility, viz., maintenance of choultry, water-pandal, &c.).—These inams, whether held in the names of the institutions, or of the persons rendering the services, were, if old or valid, confirmed, permanently, and assured against interference so long as the institutions were maintained in an efficient state and services performed according to the conditions of the grant. If the inams were recent, i.e., inams less than fifty years old, they were confirmed upon half assessment, if not obtained by fraud. If acquired by fraud, but not that of the then holders, two-thirds assessment was imposed. Where the then holders were concerned in the fraud,

the inams were resumed and full assessment imposed. Full assessment was also imposed in cases where the institutions or services for which the inams were held had ceased to exist or to be performed as the case might be; and if the inams were of a semi-personal character, i.e., if they were held by individuals, both for their own subsistence as well as for rendering a service which had been discontinued, they were confirmed to such holders and enfranchised upon half assessment. Class 3 (Inams held for the support of works of irrigation yielding public revenue).—These were confirmed to continue so long as the terms of the grant were fulfilled and the works concerned were maintained in good order. Class 4 (Inams held by Brahmins and other religious classes for their personal benefit) and Class 6 (Inams held by the kinsmen, dependents, and followers of former poligars and zemindars).—These inams were treated as personal. Such of the holders as were descendants of the original grantee were allowed the option of converting, at once, their limited hereditary tenure into a perpetual freehold, possessing a saleable and transferable character, by the payment of an annual quit-rent equal to one-eighth of the existing or estimated assessment of the land or of similar land in the same village, if they had lineal, or undivided heirs, or if, from their age, there was a reasonable presumption that they would have descendants; one-fourth of the assessment, if the heirs consisted of a limited number of lives, such as a wife without issue, or childless widowed daughters and daughters-in-law, or if the inamdars possessed divided collateral heirs, they being descendants of the grantee; and one-half of the assessment if the inamdars possessed no undivided lineal heirs and there was only one life to run, or if they had only collateral heirs, who were not descendants of the grantee. Where the holders were alienees, they or their ancestors having acquired the inams fairly by adoption, gift, purchase, &c., the inams were, nevertheless, enfranchised on the same terms as those offered to the members of the original family, but no option was allowed and enfranchisement was compulsory. If the title of the original alienees was defective, as where they acquired the inams without any consideration, religious or pecuniary, by irregular adoption or by bequest from heirless inamdars, one-fourth assessment was imposed, notwithstanding that those holding the inams at the time of settlement might have existing heirs. The procedure as regards recent and fraudulent inams was the same as in the case of similar inams under classes 1 and 2. When there was no proof either way, but an equal probability of the inam being old or recent, a compromise was effected by charging the intermediate rate of one-fourth assessment as quit-rent. In the case of grants restricted to one or more lives, one-half of the full assessment was charged where the grant was for one life only, one-fourth where the grant was restricted to two or more lives, and one-eighth where the grant was hereditary and without limit as to the number of lives. Class 5 (Inams held by the families of poligars and those who filled hereditary offices of trust under former governments) and Class 7 (Inams connected with the former general police of the country). —The Inams in these classes had their origin in services in the Revenue and Police departments, which, since the introduction of the British rule, were wholly or partially discontinued. At the time of such discontinuance, the lands and privileges, granted as remuneration by former governments, were resumed and other inams or money allowances were granted in commutation, practically as subsistence grants. In other cases, where the services were not wholly discontinued, the retention of the original inams was permitted, but the services for which they had been granted were seldom rendered, or could not be made available for any useful public purpose. Inams which related to services which had been commuted were confirmed and treated at the Inam settlement as personal grants. Those which related to services which had not been commuted, but which were unnecessary, &c., were enfranchised upon half assessment. If the inamdars were men of rank and position, the enfranchisement was upon one-fourth assessment. In cases where the fees and other emoluments, attached to the offices, had been discontinued, without compensation, the inams were treated as personal grants. Class 8 (Inams held for ordinary village revenue and police service).—During the original inam inquiry, these inams were simply recorded in separate registers and no steps were taken to deal with them, pending a decision of the principles on which the village establishments were to be revised and their emoluments regulated.

Payment by monthly salaries and clubbing of villages to form convenient ranges having since been decided upon, revised schemes of village establishments were introduced into several districts, and with the introduction of these, the service inams were enfranchised by special officers under the direction of the Inam Commissioner, on five-eighths assessment, or 10 annas in the rupee. There are several districts in which this work still remains to be carried out, and, at present, a special officer is engaged on this inquiry in the unsettled district of Bellary. The proceeds accruing from this settlement are credited to the village service fund. Class 9 (Inams held by various descriptions of artizans for services due to village communities).—These were confirmed at the Inam settlement on their present tenure. If, in individual cases, the services were not required, the inams concerned were enfranchised as personal grants. General.—All excesses found in inams, beyond an allowance of 10 per cent., were fully assessed, unless such excesses were proved to be within the ordinary limits of the inam fields. Where the inams were already held, subject to a jody or quit-rent, the new quit-rent imposed in return for the extension of existing rights was calculated, not on the full assessment of the land, but on the difference between that assessment and the jody (quit-rent) already charged, and was in addition to such jody (quit-rent). In all cases the option to redeem the quit-rent at any time by payment of twenty times its amount was given. The settlement was effected with the registered holders or the head member of a family without prejudice, however, to the claims of other sharers, whose titles were duly registered and recorded. After enfranchisement inams cease to be liable to further interference on the part of Government, except in so far as may be necessary for the realization of quit-rent and other Government dues, and become subject, like other descriptions of private property, to the jurisdiction of the ordinary Civil Courts of justice.

209. STATISTICS AND RESULTS.—The total number of inams confirmed, the quit-rent charged by the Inam Commission, and the cost of the commission from its commencement to the present date are shown below.[2] Of the amount of quit-rent newly charged, Rupees 7,26,568 represent the sum charged on village service inams enfranchised. The general success which has attended the proceedings of the commission can best be judged by the very large proportion of those interested who accepted the terms proffered by Government. It appears from the figures given down to 1866, by which time the bulk of the work had been completed, that these terms were declined in only 6,588 cases, and that the rejections involved the temporary annual loss to Government of not more than Rupees 35,885; this sum was the quit-rent fixed for enfranchisement and represents a little less than 3½ per cent. on the whole amount of additional quit-rent imposed. The provisions in the rules authorizing the conversion of the absolute tenure on enfranchisement into a freehold by the redemption of quit-rent at twenty years' purchase was taken

[2] STATISTICS OF THE COMMISSION.

—	Total number of inams.	Area.	Assessment.	Old jody.	Quit-rent newly charged.	Cost.
		ACRES.	RS.	RS.	RS.	RS.
From the commencement up to 30th June 1866.	367,427	5,977,305	90,90,881	8,42,765	10,62,767	
From 1st July 1866 to 31st March 1878.	39,530	277,022	7,93,324	57,337	1,84,747	13,35,947
From 1st April 1878 to 31st March 1879.	47	1,252	1,671	58	354	
From 1st April 1879 to 31st March 1883.	31,840	424,654	6,27,458	38,784	3,57,557	45,752
From 1st April 1883 to 31st March 1884.	5,652	72,570	1,00,560	3,732	59,527	13,688
Total ...	444,496	6,752,803	1,06,13,894	9,42,676	16,64,952	13,95,387
	Assessment of inams fully assessed up to 1866 ...				1,13,962	
	Assessment of inams fully assessed since 1866 ...				25,149	
				Total ...	17,94,063	

advantage of to a very trifling extent, only Rupees 1,606 of quit-rent having been redeemed in this way down to 1882. No other result was to be expected as 12 per cent. may be viewed as the ordinary rate of interest procurable among natives of the country for money lent on undoubted security. They would hardly therefore be likely to invest largely in redemption of quit-rent which would return but 5 per cent. on the capital sunk. It will be seen that the total cost of the commission since its formation has not exceeded 14 lakhs of rupees; a sum the reverse of excessive when the highly satisfactory results attained are considered. Landed property in which not less than $2\frac{1}{2}$ million persons are in some measure interested, and extending to nearly $6\frac{1}{4}$ millions of acres in area, which was lately held on defective and doubtful titles, and which paid to the revenue less than one-tenth of the regulated land assessment, has now been confirmed to the holders on indefeasible Government titles; and the measure has resulted in a clear gain to the revenue of about $17\frac{1}{2}$ lakhs of rupees per annum. The alienation of State revenue has been considerably reduced, and at the same time contentment has been diffused throughout the whole body of the inamdars.

WARDS' ESTATES.

210. INTRODUCTION.—The two principal estates under the Madras Court of Wards are ancient zemindarries, namely Ramnaud and Parlakimedy; and a detailed account of these will be found in the foot-notes to the article on Zemindarries. Noozveed, lately in part under the Court, will be found similarly described.

211. LAW.—Hindoo law recognizes minority and guardianship both of property and person. The limit of age in the former case is, according to the Hindoo law as interpreted in this Presidency, the close of the sixteenth year. Guardianship of a minor according to Hindoo law vests in the sovereign as 'parens patriæ,' but it is understood that the authority is delegated to near relations. India Act IX of 1875 however has for all purposes other than marriage, dower, divorce, and adoption, extended the minority age in the case of persons domiciled in British India or the allied states to the close of the eighteenth year, and where a guardian has been appointed by a Court of Justice, or a Court of Wards has assumed jurisdiction, even to the close of the twenty-first year. Further, as Hindoo law is almost wholly silent as to details of guardianship, education, &c., statute law has to a large extent superseded Hindoo law on these subjects also. For purposes of Government protection of wards there have to be considered not only cases of minority, but also cases of incapacity owing to sex or infirmity. The enactments regulating the subject of protecting wards by Government agency in this Presidency are at the present moment the following:—Regulation III of 1802, or Rules of Practice for Zillah Courts; Regulation V of 1804, Court of Wards; Regulation X of 1831, Minor's estates; India Act No. XIX of 1841, wrongful possession in case of successions; India Act No. XXI of 1855, Wards, Madras; India Act No. XIV of 1858, Minors, Madras; India Act No. XXXV of 1858, Lunacy, Mofussil Courts; and India Act No. IX of 1861, Minors. A Bill for amending the Regulation of 1804 was introduced into the Madras Council in 1875, with the objects mentioned in the foot-note [1] but has not been proceeded with. The details of the

[1] AMENDMENT OF COURT OF WARDS ACT PROPOSED IN 1875.—The following were the chief of the amendments proposed:—(1) In the first place, as the law now stands—Regulation V of 1804, section 3, clause 1—all property which pays revenue to Government comes, under certain circumstances, within the jurisdiction of the Court of Wards, and a report to Government and the sanction of Government to the proceedings is necessary in every case in which the Court of Wards acts. These provisions are found practically inconvenient. The number of revenue-paying estates has largely increased, and the action of the Courts is desirable only in the case of the larger estates. The Bill prescribed a limit below which the Court of Wards should not have jurisdiction, and dispensed with a report to Government in each case. (2) In the next place, section 3 of the Regulation is so worded as to appear to confine the jurisdiction of the Court of Wards to cases in which an estate devolves by inheritance. This restriction would act inexpediently in excluding minors who are adopted or who obtain estates by will, gift, or settlement, from the supervision of the Court of Wards. The Bill accordingly removed it. (3) Again, the Regulation, section 3, clause 1, requires a report by the Collector to be forwarded to the Court of Wards, and this report to be submitted to Government and returned with orders before any action can be taken in the superintendence of the estate. The interval of time which thus intervenes is often employed injuriously to the minor's interests in making away with the property. The Bill accordingly enable the Collector at once to take steps for protecting the estate from waste or fraud. (4) In the next place—section 8, clause 4; section 19, clause 1—if the Court set aside the nomination by the Collector

law are shown under the head of "Wards' Estates" in Vol. II, App. LIV. It may be mentioned that various provisions of statute law protect disqualified individuals not falling within the scope of the Court of Wards. Among others, Regulations V of 1804 and X of 1831 provide that, on application from the Collector, the Zillah Court shall appoint guardians to the property and persons of such individuals. These guardians are much more independent than either guardians or managers under the Court of Wards. The same Regulation X of 1831 exempts the inherited property of all minors from the sale-law.

212. Powers and Procedure of Court of Wards.—Under Madras Regulation V of 1804 the preamble of which is shown below,[2] the members of the Madras Board of Revenue are constituted a Court of Wards with permissive authority to take charge of property devolving by succession on heirs held by them and the government to be incapacitated by minority, sex, or infirmity, from administering their own affairs, provided that the heirs concerned be persons paying revenue or rent direct to Government, and provided that the property thus devolving is an entire and not a joint ownership. The position of a ward is analogous to that of a ward under the English Court of Chancery. The terms of the different conditions and provisos above specified should be noted. The Government do not undertake to concern themselves with those who do not pay immediately to them, others being presumably persons in very small circumstances; on the other hand it is immaterial whether the disqualified person is under zemindarry or ryotwarry tenure. In the cases of joint or "undivided" ownership Government cannot interfere owing to the inherent difficulties; it is presumed moreover that the other owners will protect the property. The power to take charge is in all cases permissive, and the Government may decline; small properties are not as a rule taken charge of. The provision that the property must devolve by succession precludes a dishonest transfer to disqualified persons for the sake of protecting the estate from the operation of the sale-law; see below. Females and minors (but not lunatics or idiots) have a right of appeal against assumption to the High Court, through the Zillah Court. The Regulation of 1804 applies in the scheduled districts (India Act XIV of 1874) only to the Bhadrachellam and Rekapully talooks and the Rumpa country in the Godavery district. In cases where lunacy may occur at some time other than that of succession, the Collector of the district is empowered by Act XXXV of 1858, section 3, clause 2, to move the Civil Court to put the estate under charge of the Court of Wards. The first step in assuming charge must be sanctioned by Government, but subsequently to that the Court of Wards administers the estates on its own responsibility. The estates are restored when, in the opinion of the Court, the disability has ceased. The estates are managed through Collectors, who employ special establishments at the cost of the estates. A paid manager appointed under the Act to take charge of the property forms part of every establishment. There is also in all cases a guardian, paid or otherwise whose duty it is to protect the person and attend to the private affairs of the ward, and to administer that part of the income which is set apart for the ward's private use. The manager and guardian are co-ordinate in their authority; they cannot be the same person. Important public works which require execution on the estate

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of managers or guardians, it must report the matter to Government. This was omitted in the Bill. (5) Provision was made in the Bill for the supervision of the whole of an estate in which a minor is a joint proprietor, so far as may be necessary to protect the minor's interests; and where a minor's property is situated partly in one collectorate and partly in another, the Court of Wards was authorized to empower the Collector of either of the districts in which the property is situate to superintend the whole estate. (6) The powers of a person under the Court of Wards, as regards alienation, testamentary or 'inter vivos,' and adoption, are not at present distinct; the Bill cleared up this uncertainty, and enacted that a person under the control of the Court of Wards should be disqualified for the performance of any such act.

[2] Preamble to Regulation V of 1804.—Whereas sundry persons, being the legal inheritors of property, have been and may hereafter be incapacitated by minority, sex, or natural infirmity from taking charge in their own behalf of such property, by reason whereof the said property has been liable to be transferred to the custody and management of other persons, not being liable to due responsibility or control; and whereas instances have frequently occurred wherein such temporary managers have abused the trust to which they have succeeded, by neglecting the interests or by the fraudulent dilapidation of such property, to the great injury and distress of the persons on behalf of whom the said trusts have been undertaken; and whereas it is expedient and necessary that secure and efficient means should be established, under the sanction of public authority and of legal provisions, for the due preservation of the property of incapacitated persons, the education of minors and the care of the persons of lunatics and idiots—wherefore the Governor in Council has been pleased to establish a Court of Wards for those purposes, under the following Regulations.

are carried out, under sanction of the Government, by the Public Works Department, the public works executive staff up to the grade of overseers being provided for in the estimate. In minor cases the Collectors carry out the works themselves with special and sometimes temporary engineering establishments. The Court of Wards have engineers of their own in Parlakimedy, Ramnaud, and Guntamanayakanoor estates. The ryotwarry system of tenure is generally introduced when estates are for any considerable time under management. Property under the Court cannot under this law be attached or sold for arrears of public revenue (cf. section 63, Madras Act II of 1864), and if one year shows a loss in the collections of public revenue the deficiency must be made good by surplus amounts in other years. If the management closes on restoration with a deficit in the public revenue, the amount must be written off; provided that when management has opened with a debt of this description, the Government retains its lien on the amount if the receipts during management have only paid for the minor's personal expenses and the Government demand without further outlay. The amount reserved for the minor's personal expenses is generally 10 per cent. of the year's Government demand as actually realized. When the funds show a yearly surplus, the property is generally improved; if invested in securities, there is a risk of its being squandered by the ward on coming of age. A commission of 1½ per cent. on the total revenues, deducting however the amount of the establishment charges and public works charges, is paid to Government for the general supervision of its officers. Each estate sends up an annual budget to the Court to be dealt with separately. The funds as raised from the estate are paid into the Government treasury, and accounts are there kept for each estate. The public funds cannot be indented on by an estate except by special loan. When the accounts show a large deposit for any one estate at any treasury, the amount is remitted to the Bank of Madras through the Court. The Court keep a separate account for each estate, but the Bank of Madras keeps only one account in the name of the Court. Surplus funds are invested in Government paper. Under Act XXI of 1855 the Court have also control of the education of every male minor, whose property has been taken under their management with that of such minor's younger brother or brothers. The wards are generally educated, either by a tutor or by attending school at the head-quarters of districts where they can be under the eye of the Collector. There is a penalty for aiding and abetting the marriage of a minor, or of the sister or younger brother of a minor, made without the consent of the Court. Disqualified proprietors cannot adopt children without the Court's consent. The Revenue Board's Standing Orders 182–191 deal with the subject.

213. Statistics.—The statement in Vol. II, App. LXI, shows the estates under management at the end of fusly 1293 (year ending 30th June 1884) with the caste, age, and sex of the wards, the date of assuming management, the date when they will probably be restored, and the rent-roll according to the best information. There were at the close of fusly 1292 (year ending 30th June 1883) altogether 39 estates enjoying a yearly revenue of about 20 lakhs of rupees. The total debts outstanding against these estates were about 19 lakhs of rupees. A lakh and seventy-three thousand rupees were spent on public works in the fusly last mentioned.

ESCHEATS, &c.

214. Escheats.—On a person dying intestate and without legal heirs his real property escheats to Government. Section 6, Regulation VII of 1817 (relating to endowments and escheats), provides that such property shall be sold on the public account or otherwise disposed of at the pleasure of Government. Buildings are generally sold; ordinary assessed land is sometimes sold and sometimes given to occupiers on condition of merely paying the assessment; inam land is resumed and fully assessed. In many cases the property is assigned by Government to persons having a natural though not a legal claim. The Board of Revenue are charged with the duty of bringing cases of escheat to the notice of Government; when the property is valued at not more than Rupees 50 they are authorized by Government to dispose

of the case themselves. Escheat will also occur by political forfeiture; a well-known case of this was in the Wynaud in 1806.[1] Escheats by lapse or forfeiture have been numerous in Malabar.[2] In other districts instances of the exercise of this right are rare. The law on the subject is shown in detail under the heads of "Escheats" in Vol. II, App. LIV.

215. LAPSES OF PERSONAL PROPERTY.—When intestates leave personal property to which no proper claim is made, the ownership vests in Government; see section 27 of Statute 16 and 17 Vic., c. 95 (1853). Under clause 7, section 16, Regulation III of 1802, the Zillah Judges are to take charge of such property pending the orders of Government. In practice, when the value is small, the Collector takes charge and disposes of the property at his discretion.

216. TREASURE TROVE.—Under India Act VI of 1878, the Indian Treasure-trove Act, the finder of treasure exceeding 10 rupees in value must give notice to the Collector of the district of the nature and approximate value of the treasure found and other circumstances attending its finding, and must deposit it in the nearest Government treasury or give security for its production when required. On receipt of such notice a notification is published by the Collector requiring claimants to appear before him on a fixed day, and on that day he holds an inquiry. If a claimant appears and there is reason to believe that the treasure was hidden by him within 100 years before the date of finding, the hearing of the case is adjourned to enable the claimant to institute a suit in a Civil Court to establish his right. On the other hand the Collector declares the treasure to be ownerless if he has no reason to believe that the treasure was so hidden, or if no suit is instituted, or if the plaintiff's claim is rejected on the institution of a suit. When the treasure is held to be ownerless, and no person other than the finder of the treasure appears to claim a share as the owner of the place where the treasure was found, the treasure is handed over to the finder. If any person claims a share as owner of the place and his claim is not disputed by the finder, then three-fourths of the treasure, or its value in money, is allotted to the finder and the residue to the person claiming. In the event of a dispute as to the ownership of place, the matter must be determined by a Civil Court. The whole or a portion of the treasure can also be acquired for Government, the Collector paying to the persons entitled to it a sum equal to the value of the materials of the treasure or portion, with one-fifth of such value added. The Act contains penalties for failure to give notice, &c., on the part of the finder or of the owner of the place in which treasure is found.[3]

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[1] SKETCH HISTORY OF WYNAUD ESCHEATS.—The Pychee Rajah, a junior member of the Cottayam Rajah's family in Malabar, had authority in the hill country of Wynaud until 1787, when it was forcibly annexed to the Mysore dominions by Tippoo Sultan. In the final partition of Tippoo's dominions after the fall of Seringapatam in 1799, Wynaud fell to the share of the British Government, but the Pychee Rajah, with the assistance of the inhabitants, defied their authority and rose in rebellion against them. The rebellion was suppressed in 1806, when all the rights in land belonging to the rebels were declared forfeited to the British Government. The sentence of forfeiture however was only partially carried into effect, the actual confiscation being restricted to paddy lands then under cultivation; and all hill forests and other uncultivated tracts which constituted by far the largest portion of the property escheated, remaining undefined. Matters remained in this unsatisfactory position until 1859, when the question of title to forests came under the consideration of Government in connection with arrangements for forest conservancy throughout the Presidency. Government decided that wherever proprietors had been in continuous enjoyment ever since the sentence of forfeiture was passed in 1806, it should not now be carried out and at the same time directed that a survey should be made of Wynaud with the view of fixing the boundaries of estates which had escheated to Government and of those in regard to which claims of private proprietorship were recognized. This survey for various reasons was postponed, but Government have recently directed that it should be undertaken at once and carried out as early as possible.

[2] SKETCH HISTORY OF ESCHEATS IN MALABAR.—Escheat operations commenced in the Malabar district in 1843 when the Collector recommended the levy of jenmabhogam (or rent payable by tenant to the proprietor in addition to the Government assessment) on the estate of the Bettatnaud Rajah who had died in 1792 intestate and without heirs. Since then several other properties have come into the hands of Government either as escheats or as forfeiture for rebellion, &c., the latter specially in connection with Moplah outrages. As it was considered undesirable that Government should undertake the duties of landlords in respect of these lands, it was decided in 1863 to sell the jenm right of Government, the occupants being given the option of taking it at a fair valuation and of paying the purchase money outright or of the interests thereon at 5 per cent., with the assessment, with liberty to redeem it at twenty years' purchase. A Deputy Collector has been specially employed since 1863 to settle these cases. He has been entrusted also with the duty of selling the jenm right of Government in British Cochin and a few islands ceded by the Dutch who had full proprietary rights in the lands, the occupants being merely tenants at will; as also in lands relinquished by proprietors or sold for arrears of revenue. The arrangements made for the transfer of the jenmy right from Government to the occupants of land have not proved satisfactory and the Government are now considering the question of revising the rules.

[3] RULES HAVING THE FORCE OF LAW IN RELATION TO TREASURE TROVE.—Under section 19 of India Act VI of 1878, rules on this subject have the force of law, published in the Fort St. George Gazette, dated 10th September 1878.

CHAPTER III.

PROTECTION.

JAILS.

217. INTRODUCTION.—The history of jail management in this Presidency is sketched in the foot-note.[1] The main principles that should be observed in the confinement of prisoners under judicial sentence are :—(*a*) the proper classification of prisoners, (*b*) the provision of suitable buildings, (*c*) the appointment and organization of suitable supervising establishments, (*d*) the exaction of suitable

[1] SKETCH HISTORY OF JAILS IN MADRAS PRESIDENCY.—*Necessity for reform.*—The native governments did not hand over any jails to the English and their provision has everywhere devolved upon the British Government. The history of jail management is consequently in a very large measure the history of progressive reforms. When first the matter was taken up fifty years ago, it was admitted that the state of the jails reflected discredit on the Government. In the Madras Presidency, the annual jail mortality was seldom less and generally more than ten per cent. of the average strength of the prisoners. When this death-rate is compared with the mortality in the jails in England, which was less than one per cent., it will be seen in how many cases the sentence of imprisonment in India became virtually one of capital punishment. This excessive mortality was mainly attributable to the following causes :—Overcrowding, bad ventilation, bad conservancy, bad drainage, insufficiency of clothing, sleeping on the ground, deficiency of personal cleanliness, bad water, exaction of labour from unfit persons, insufficient medical inspection, imperfectly cooked food and insufficient food (from fraudulent diminution). At that date confinement was almost the only object in view, the jails being but barracks surrounded with high walls. This initial mistake has been the principal obstacle to the progress of reform. Moreover, there are special difficulties in this country for carrying out the details of prison reform. As for the locality, that which is healthy in one season may become the reverse in another owing to fever or cholera. As to the close-yard which is adapted for the classification of prisoners, and is not unwholesome in England, great care is requisite in India to prevent it from begetting malaria. In questions regarding food and labour there are special difficulties connected with the caste organization of the country. (2) *Lord Macaulay's Committee.*—The first practical measures on any considerable scale of prison reform in India were initiated by Lord Macaulay. In 1835, shortly after his arrival as a Member of the Indian Law Commission, he recorded a minute in which, proceeding upon the basis that the best criminal code can be of little use to a community unless there be a good machinery for the infliction of punishment, he showed that, as death was rarely inflicted, the practice of flogging was abolished, and transportation was expensive, imprisonment became the punishment which would probably be resorted to in ninety-nine cases out of every hundred. It was, therefore, of the greatest importance to establish regulations that would make imprisonment a terror to wrong-doers, and at the same time prevent it from being attended by any circumstances shocking to humanity. With regard to the discipline that then prevailed Lord Macaulay wrote of the prisoners in the Alipore Jail :—"it is only a few months since they murdered the Superintending Magistrate; at present no visitor can enter the gates without danger." Such having been the state of the jail at the Presidency, conjecture may be made as to what sort of system was followed in the mofussil. Lord Macaulay suggested that the jail at Alipore should be reformed and made a model for other prisons, and his minute led to the appointment of a committee. Their report was presented in 1838. (3) *Appointment of Inspectors-General.*—The next step in prison reform was the appointment of an Inspector-General of Prisons in each province. After an experimental sanction of six years the office was made permanent in 1850. In the year 1855 an "Inspector-General of Prisons" was appointed in Madras. Prior to this time, the district jails were under the immediate charge of the Judges of the District Courts, to whom such executive duties, as might be expected, were distasteful. Hence it happened that in many cases the real administration was left to the jailors, a class of men unfitted by training and education to have such responsibilities entrusted to them. These and all other jails were placed under the Inspector-General. (4) *Civil Surgeons as Superintendents.*—The third large measure of reform was initiated in the North-Western Provinces in the year 1860, when the superintendence of the district jails was experimentally made over to the Civil Surgeons who had hitherto only had the medical charge of these jails. This arrangement was finally sanctioned in 1864, and introduced into Madras towards the end of 1865. This placing of the administration of jails in the hands of officers possessing an intelligent acquaintance with the principles of hygiene materially helped to bring about an improved sanitary state of prisons. The difficulties of jail administration in this Presidency were probably at their highest during the years 1860 to 1864-5. In these years extraneous causes contributed to a great overcrowding of the jails, but no corresponding increase of accommodation was provided. The new Indian Penal Code came into force in 1860 with provisions comprehensive enough to include criminals both great and small; and as regards the latter, it omitted to provide any other mode of punishment than imprisonment. Again, simultaneously with the introduction of the Penal Code, the police administration in India was, for the first time, organised on an efficient system, and the new police force in Madras began so to check the habits of the criminal classes, that, had the jails been twice as large, they could not have accommodated the sudden influx. (5) *Lord Lawrence's Committee.*—Twenty-six years after Lord Macaulay's Committee submitted its report, the fourth important measure for the improvement of jails in India was inaugurated by the then Viceroy, Lord Lawrence, who, in his minute dated the 3rd March 1864, appointing another committee, pointed out that the full measure of improvement contemplated by the committee of 1836 had never been carried out, and that, whilst but little progress had been made either towards the improvement of the prisoners or the prevention of crime, the loss of life amongst all classes of prisoners continued, year after year, to be very great. The recommendations of this committee were based generally upon those of the committee of 1836. Two special points may however, be noticed in which the committee of 1864 differed from that of 1836, and gave views in advance of what had theretofore been the practice; that no central jail (intended for

labour from the prisoners, (*e*) a remission system, (*f*) a system of punishments, (*g*) dietary and sanitary arrangements, and (*h*) arrangements for the improvement of morality. The remarks regarding departmental working in the present article will be considered with reference to these headings. The comparison of the English

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all prisoners sentenced to a term exceeding one year) should be built for more than 1,000 prisoners; and that the minimum space allowed to each prisoner should be 9 feet by 6, or 54 superficial feet, and 9 feet by 6 by 12, or 648 cubic feet. On the other hand the recommendation with regard to central jails being provided for prisoners sentenced to a term exceeding one year was not a new one, but originated with the committee of 1836. In Madras the necessity of central jails had been already recognised, and so far back as 1857 it had been proposed to build five central jails, of which two, at Coimbatore and Rajahmundry, had been commenced. (6) *Prison Conference of* 1877.—The latest principal measure for the improvement of jails in India was the convening of a Prison Conference at Calcutta by the Supreme Government in 1877. This conference was almost exclusively composed of experts. Its principal object was to evoke specific recommendations, based on actual experience of the working of jails in each province; for the diminution of such difference in practice as did not necessarily follow from difference of climate, habits of the people, character of the criminal classes, and other causes demanding special recognition, but was rather the accident of independent legislation and executive orders. The comparison of differences of this nature, not only in view to uniformity of sentences, but so as to facilitate the transfer of prisoners from one province to another, was supplemented by an examination of the general features of English jail discipline so as to see whether any of them were applicable to the circumstances of India. (7) *Improvements in Madras as to jail accommodation.*—Prior to the appointment of the committee of 1864 the jail population in this Presidency was confined in many unsuitable buildings; some built for the purpose before sanitary conditions of space and ventilation were observed, others merely adaptations of existing buildings. The central, district, and subsidiary jails (a large proportion being new buildings) are now capable of accommodating 17,896 souls at a general average of 40 superficial and 600 cubical feet per head, of dormitory space, and providing for the separation of the sexes and the segregation of juveniles. Old jails have been gradually rebuilt, and nearly all those replaced which are radically defective on sanitary grounds. Provision for the ventilation of jail buildings is now thorough and complete. They are well drained, and the flooring is mostly of impervious asphalte. (8) *Improvements as to classification of prisoners.*—In 1876 it was determined in Madras to make an experiment in the separate system. Accordingly, in the central jail at Coimbatore, two wards were divided by upright spars into single cubicles in such a manner that each prisoner was kept apart, while ventilation was unimpeded. Similarly, in the Penitentiary at Madras the juveniles' ward was sub-divided into cells by means of wooden frames and close wire-netting. The Coimbatore experiment was found open to the objection that although the cages kept the prisoners apart at night, the consequences of association were but little modified, as the prisoners were able to converse and freely communicate with each other. In the Penitentiary, in addition to 44 sleeping cells for European convicts, a close prison has since been built consisting of a quadrangle of 106 separate cells in which long-term prisoners pass the first eight months of their sentences. The results having proved satisfactory, not only in respect of discipline, but on the score of health, of the salutary effect on the conduct of the prisoners, and of the deterrent influence of the system, it was determined to extend the system. The jail at Bellary has been provided with a number of separate cells; a new district jail at Palamcottah, on the cellular system, has been completed and occupied; a new cellular jail of 200 cells is now under construction at Tanjore; a new district jail at Vellore, on the cellular system, has been sanctioned; and cellular close prisons are now being built at Vellore and Coimbatore, attached to the central jails at those stations. On sanitary as well as disciplinary grounds it is highly desirable that the cellular system should be extended to all the jails, but the great outlay it would involve has hitherto prevented the execution of this reform. (9) *Changes as to the employment of prisoners.*—The progress of this part of the jail administration has necessarily been dependent on, and has followed the improvement of the jail buildings. With the extension of these and the introduction of the remission system it was found practicable to provide a very considerable variety of intramural labour to suit the different classes of prisoners and the several stages of imprisonment. Indeed, the labours of the central jails may now be said to be entirely intramural, even the farm lands attached to some of these prisons being effectually enclosed. Complaints however having been made that jail manufactures were detrimental to private trade, inquiry was instituted in 1882 by the Government of India, which resulted in the adoption of a new policy. The reasons for that policy, as enunciated in the Resolution of the 22nd September 1882, are as follows. India's greatest want being industrial pursuits, it is declared to be the duty of Government to do nothing to hinder the spontaneous growth, but, on the contrary, so far as it legitimately can, to stimulate and assist the development of trades. It is therefore laid down as a primary rule that whilst jail labour shall, as a rule, be productive, it need not be made as productive as possible. The following instructions were accordingly issued: that out-door labour on large public works, State or private, should be the principal mode of employing long-term prisoners; that jail industries should be limited to a certain number of authorised industries to be concentrated as far as possible; that, as a rule, manual labour only should be employed, the use of steam machinery in jails being declared indefensible, while European machinery driven by treadmills, capstans, or other applications of convict labour was to be restricted. (10) *The Remission System.*—This system has now been working in its entirety in the Madras Presidency for the last sixteen years, and has proved a great boon both to the convicts and to those in charge of them. (11) *Changes as to corporal punishment.*—A cause of excessive mortality in former days was to be found in the frequency of corporal punishment, almost to the exclusion of other modes of coercion. Under the orders of the Supreme Government flogging has now taken its proper place in the disciplinary code of a prison, namely as the ultimate resort where every other means of coercion has failed. Under the Madras Jails Act (Madras No. V of 1869) offences against prison discipline were punishable by stripes not exceeding one hundred and fifty with a cat-o'-nine tails. By the new Criminal Procedure Code which came into force on the 1st January 1883 the infliction of corporal punishment is limited to thirty stripes with a light rattan, persons over 45 years of age being altogether exempted from flogging, and in the case of male juveniles the number of stripes is restricted to eighteen stripes in the manner of school discipline. (12) *Improvements as to diet.*—With regard to the improvements made of late in the dietary of prisoners, reference may be made to the extreme unhealthiness for which they were so long notorious. The prisoners died formerly not so much from epidemic diseases as from the sequelæ of scurvy. Obstinate and intractable forms of diarrhœa and dysentery, dropsies and anæmia were the cause of frequent deaths. The knowledge as to the nature and quality of the food supplies of the labouring classes was formerly very indefinite. A notion generally entertained that the working people of India, and especially those inhabiting the interior of the country, existed upon rice alone was found to be erroneous. In point of fact, they for the most part choose a grain containing more albuminates. So far from being vegetarians, most of the working classes eat meat, fish, or game, and drink milk, curds and whey whenever they can obtain them. Hence, in the arrangements for feeding prisoners the natural habits of the people were often ignored. There was given a poor and innutritious grain such as rice, when cheaper and more nourishing millets formed at home the prisoner's daily food. In the changes that have since taken place the importance has been recognized of fixing the amount of animal food, grain, salt, and fresh vegetables in jail diets instead of leaving them to be apportioned at the discretion of a jailor, according to the bazaar price of the articles, as used to be the practice under the old system of giving to each prisoner a small sum of money daily, termed 'batta,' to provide himself with food. In 1866 the Madras Government promulgated a new jail code in which the new diet scales were ordered to be adopted; and they were generally introduced in all the jails in the year 1867, the year in which the excessive prison mortality began to decline. In regard to the fatal forms of jail diarrhœa, dysentery, and dropsy which used to be so common under the old defective dietaries, the present system of feeding has, in a great measure, tended to obviate the excessive death-rate. (13) *Improvements as to morality.*—The education of all prisoners in jails was required by

and Indian jail-systems shown in the next foot-note [2] will also throw light on the same general principles.

218. LAW AND RULES.—The law relating to jails and prisons is contained in the following:—32 and 33 Vic., c. 95 (Millbank Prison); 44 and 45 Vic., c. 58, s. 130 (Army); India Act XV of 1869, ss. 3—8, 11—18 (Evidence of Prisoners); India Act VII of 1870, s. 19 (XVII), (Court Fees); India Act IV of 1871, s. 17 (Coroners); India Act III of 1877, ss. 33, 38 (Registration); India Act IX of 1882, s. 2 (Prisoners Act Amendment); India Act X of 1882, ss. 318, 332, 381, 383—385, 420, 491, 514, 542—548 (Criminal Procedure); India Act XIV of 1882, ss. 87, 88 (Civil Procedure). The law relating to jail management in this Presidency is contained in Madras Act V of 1869, called the Madras Jails Act. Other enactments connected with the Jail Department are:—Madras Regulation II of 1819 (State Prisoners); India Act XXIV of 1839 (Ganjam and Vizagapatam); India Act XXIV of 1855 (Penal Servitude); India Act V of 1876 (Reformatory Schools); Madras Act VII of 1882 (Madras Jails Amendment Act); and India Act XX of 1859 (Moplahs Act). A Jail Act for the whole of India has been proposed, but has not been carried out. Various general points connected with prisoners and their sentences are provided for in India Act No. V of 1871, called the Prisoners Act, which consolidates nine previous general Acts. The detailed law relating to jails and prisoners is shown under the heads of "Civil Jail" and "Prisoners" in Vol. II,

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the jail rules of this Presidency promulgated in 1865. It was to be of an elementary character and was in no case to lead to any relaxation of the prisoners' sentences, nor to any interference with the regular duties and work of the jail. It was found however that from various causes many prisoners were incapable of profiting by instruction. The gradual recognition of this and other difficulties has since led to the limiting of adult criminals to a single hour of elementary instruction per diem, and to permission being given to Superintendents to exempt from attendance at school prisoners on whom instruction would be wasted. In May 1882 a committee was appointed to consider the necessity or desirability of applying the Reformatory Schools Act, V of 1876, to this Presidency. In their report of October 1882, the committee after discussing the several objections which had suggested themselves in regard to the religious difficulty, the removal of children from their homes, and the disposal of boys on discharge expressed an opinion that the object to be aimed at, namely reform by a long period of correctional training, could not be attained in prisons or reformatories attached to prisons. They therefore proposed that the Act should be brought into force at once, but that in the first instance only one reformatory school should be established in the neighbourhood of Madras, to which juvenile offenders should be sent from certain stated districts, leaving it open hereafter to establish similar schools in other divisions of the Presidency. The proposals were accepted, with results shown in the text.

[2] COMPARISON OF THE INDIAN AND ENGLISH JAIL SYSTEMS.—*Difference as to uniformity.*—The result of experience in England has been the establishment of a uniform system for the treatment of convicts throughout the country. In India legislation on prison discipline has not been confined to the Imperial Legislative Council, but various local Governments have passed their own Prison Acts. Moreover, under the Provincial Service Resolution of 1870, the general control of jails has, with the budget allotment for the service, been transferred to local Governments and Administrations; and these under India Act XXVI of 1870 and India Act V of 1871, have been vested with the power of making separate and independent rules on all points connected with the discipline and management of prisons. Therefore different systems prevail in different provinces. A consolidated Prison Act for India was proposed, but has not been carried out. (2) *Difference as to supervision.*—The English system does not recognize the practice of placing one convict, under any circumstances, in authority over others. In Indian jails well-behaved convicts are employed as warders, as work-overseers, as guards, and as clerks. On this point it was remarked by the Prison Conference: "Our only regret is that we cannot make every long-term prisoner, who proves himself worthy of the privilege, a convict officer." (3) *Difference as to classification of prisoners.*—In the county jails of England, where the prisoners are kept in separate cells by day and night, classification is unnecessary. There are, it is understood, five specified modes of English prison life, namely:—prisoners sentenced to simple imprisonment, one mode; prisoners sentenced to rigorous imprisonment only, two modes—one lenient and one more severe; prisoners sentenced to rigorous imprisonment and penal discipline, two modes—one less severe and one very severe. Practically however criminals are classified there according to their conduct in jail. The practice in India varies in different provinces, and that in Madras is shown in the text. (4) *Difference as to degree of punishment.*—In England prisoners whose sentences do not exceed two years are confined in county or borough jails, in which each prisoner has a separate cell, and is employed on the treadmill or crank, on mat-making, oakum-picking, and similar occupations. The shorter the term in these prisons, the severer the work and the scantier the diet; and this, coupled with strict isolation, the plank bed, hard work, and the prompt application of dark cells, deprivation of food, or whipping in the case of refractory conduct, makes the whole ordeal a very formidable one. Every effort is made there to prevent the jail from being resorted to as a refuge in times of distress. Just as Indian prisoners sentenced to a long term prefer transportation to imprisonment in the central jails, so do the criminal classes of England regard a comparatively short period of confinement in a county jail with greater dread than a longer sentence in a convict prison. If the sentence is for longer than two years, it is called a penal servitude sentence, and the convict is sent to one of the convict prisons, Pentonville or Millbank. In this country prisoners whose sentences do not exceed thirty days are confined in subsidiary jails, those whose sentences do not exceed one year in district jails, and those who are sentenced to rigorous imprisonment for periods exceeding one year in central jails; but, whilst the treatment of prisoners in the Indian central jails is analogous to that pursued in the English convict prison, with the exception that separate sleeping cells are not provided, the treatment in district jails is not of the same deterrent nature as that in force in English county jails. (5) *Difference as to sentences.*—The sentence of transportation has been abolished in England. In India, under the Penal Code, transportation may be awarded for life, for fourteen years, or for any term not less than seven years. Sentences of transportation from India are now exclusively carried out in the penal settlement of Port Blair, established in 1858, when it was found necessary to deport from India the large number of convicts who, during the mutiny, had been sentenced to transportation for life. Prior to this date native convicts sentenced to transportation had been sent to Singapore, Penang, or Malacca. (6) *Difference as to remission.*—Under the ticket-of-leave system in England prisoners are released before the expiry of their sentence; but their license to be at large is liable to be revoked in the event of relapse into crime. In India prisoners who have earned their release in India under the remission system are set free unconditionally.

App. LIV. The penal law of the country is also briefly sketched below.[4] On the 18th June 1883 revised rules were passed for the management and superintendence of jails in the Madras Presidency. They constitute a carefully prepared code in which are embodied all the regulations relating to jails and jail management that have from time to time been passed by the Local Government.

219. CONSTITUTION OF THE DEPARTMENT.—The general superintendence of the jails throughout the Presidency rests with the Inspector-General of Jails, appointed under Act V of 1869. The Inspector-General of Jails is ex-officio visitor of all Lunatic Asylums in his jurisdiction. He also inspects and reports upon criminal lunatics confined in any jail under him by order of the Government under Section 472 of the Code of Criminal Procedure, such report being necessarily made once in every six months. The charge of central jails is assigned to superintendents specially selected and appointed by Government. The superintendent has immediately under him a disciplined staff of jailors and warders; there are also office clerks and store-keepers, and a small staff of artizans to instruct the prisoners in their various trades. There is also a medical officer with one or two hospital assistants. The executive management of the jail in all matters relating to internal economy, discipline, labor, expenditure, punishment and control generally rests with the superintendent, subject to the authority of the Inspector-General of Jails. The superintendence of district jails is vested in the Civil Surgeon of the district, and the nomination to these appointments rests with the Surgeon-General, Indian Medical Department. The general control and superintendence of subsidiary jails are vested in the Magistrate of the district, but the executive charge in this case is vested in the Sub-Magistrate or other chief magisterial officer to whose office the subsidiary jail is attached. The Inspector-General inspects prisons in which Europeans and Americans are confined once in six months; and all other jails, with the exception of subsidiary jails, once in every year. In the course of his tours he takes the opportunity to inspect as many of the subsidiary jails as possible. In addition to the detailed and periodic inspections by the Inspector-General, the Sanitary Commissioner inspects the central and district jails from time to time with the special object of ascertaining and reporting on their sanitary condition. The Sanitary Commissioner's services are also employed in cases of outbreak of epidemic disease or unusual sickness. In like manner the Deputy Surgeons-General visit and report on the jails of their circles. In addition to the precautions just mentioned official visitors are appointed by Government to all the central and district jails, and these officers are bound to visit the jails in their charge at least once in every month. The official visitors are the Session Judges, Magistrates, Joint Magistrates and Head Assistant Magistrates of the several districts in which the jails are situated. It is the duty of all official visitors other than the Session Judges to inspect the subsidiary jails situated in their charges. The results of the inspection made by the official visitors are recorded and transmitted to the Inspector-General of Jails, who passes such orders thereon as he may think necessary.

220. JAIL ACCOMMODATION.—The prison accommodation in this Presidency is as follows:—7 Central Jails, including the Penitentiary at Madras; 24 District Jails, including the European Prison at Ootacamund; 317 Subsidiary Jails; and 1 Jail for civil debtors at Madras. Central Jails are divided into two classes; the first class to contain 1,000 convicts and upwards, and the second class to contain less than 1,000 convicts. There are four first-class and three second-class Central Jails.

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[4] SKETCH NOTICE OF THE PENAL LAW OF THE COUNTRY.—*Penal Code.*—The punishments prescribed in the Indian Penal Code are (*a*) Death, (*b*) Transportation, (*c*) Penal servitude, (*d*) Imprisonment—1, rigorous; 2, simple—(*e*) Fine. Of these punishments, transportation for life may be commuted to rigorous imprisonment for a term not exceeding fourteen years. (2) *Act XXIV of* 1855.—Europeans and Americans are exempted from transportation, and come under Act XXIV of 1855, which substitutes penal servitude of 4 years for transportation for 7 years; 4 to 6 years for transportation for 7 to 10 years; 6 to 8 years for transportation for 10 to 15 years; 6 to 10 years for transportation exceeding 15 years; for life for transportation for life. • Previously transportation for a term exceeding ten years, but short of life, could be awarded under five sections only, namely, Sections 115, 222, 392, and 458. The result was practically that in the case of the vast majority of European and American offenders, the courts had no option between awarding a sentence of penal servitude for six years or one of penal servitude for life. (3) *Act XXVII of* 1870.—Act XXVII of 1870 removed this last defect by declaring that where such an offender would, but for Act XXIV of 1855, be liable to transportation for a term exceeding ten years, but not for life, he shall be liable to penal servitude for such term exceeding six years but not for life, as to the Court seems fit. In the case of all other convicts, imprisonment for seven years or upwards may be commuted to transportation for seven years or upwards.

The first-class Central Jails are Rajahmundry, Vellore, Trichinopoly, and Coimbatore. The second-class Central Jails are Salem, Cannanore, and the Penitentiary. Two abstract statements are given at foot [5 & 6] showing the number of persons the different jails in this Presidency are constructed to contain. In the case of subsidiary jails the information is given by districts.

[5] ACCOMMODATION IN EACH CENTRAL AND DISTRICT JAIL IN 1884.

Jails.	Capacity of the jail barracks at 40 superficial feet per head.			Daily average number of prisoners of all classes.			Total population (all classes of prisoners included).			Maximum population on any one day.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Bellary	316	33	349	296·05	12·77	308·82	948	53	1,001	341	23	364
Berhampore	158	32	190	86·82	7·49	94·31	457	38	495	119	6	125
Calicut	192	28	220	165·31	5·45	170·76	940	41	981	219	9	228
Cannanore Central ...	799	30	829	489·99	...	489·99	602	...	602	539	...	539
Chingleput	196	24	220	79·93	7·36	87·29	492	50	542	100	21	121
Chittore	258	24	282	139·79	6·97	146·76	704	53	757	159	8	167
Cochin	6	...	6	·21	...	·21	3	...	3	2	..	2
Coimbatore Central ...	1,068	52	1,120	621·49	19·75	641·24	983	34	1,017	734	23	757
Do. District ...	180	...	180	140·26	10·66	150·92	670	46	716	187	11	198
Cuddalore	338	10	348	164·66	4·32	168·98	677	28	705	218	8	226
Cuddapah	168	12	180	91·62	8·76	100·38	622	77	699	132	29	161
Debtors' Prison, Madras ...	...	...	...	103·51	1·13	104·64	462	49	511	...	...	...
European Prison, Ootacamund	36	...	36	21·81	...	21·81	45	...	45	28	...	28
Goontoor	189	9	198	150·89	7·44	158·33	530	35	565	189	11	200
Kurnool	126	3	129	61·38	6·61	67·99	331	28	359	101	13	114
Madura	467	22	489	170·96	7·75	178·71	868	43	911	238	11	249
Mangalore	271	31	302	67·19	7·23	74·42	349	35	384	95	12	107
Nellore	215	21	236	71·93	7·05	78·98	372	49	421	102	11	113
Ootacamund District ...	174	11	185	126·43	1·29	127·72	317	12	329	180	4	184
Parvatipore Hill Jail ...	90	8	98	118·77	2·01	120·78	331	6	337	151	2	153
Penitentiary	...	...	...	550·13	40·88	591·01	2,188	271	2,459	...	...	...
Rajahmundry Central ...	1,044	55	1,099	618·75	14·03	632·78	862	25	887	667	17	684
Do. District ...	92	14	106	103·69	11·96	115·65	502	50	552	126	...	126
Russellcondah	127	11	138	95·31	·72	96·03	271	6	277	116	2	118
Salem Central	663	37	700	408·13	18·23	426·36	1,059	56	1,115	464	28	492
Tanjore	206	10	216	127·62	3·92	131·54	737	24	761	276	10	286
Tellicherry	148	10	158	52·93	3·18	56·11	302	15	317	83	6	89
Tinnevelly	272	20	292	185·42	5·57	190·99	819	38	857	258	13	271
Tranquebar	110	11	121	78·82	6·21	85·03	393	28	421	106	9	115
Trichinopoly Central ...	1,070	102	1,172	486·41	30·45	516·86	708	78	786	535	31	566
Do. District ...	167	10	177	80·36	·05	80·41	469	3	472	125	1	126
Vellore Central	957	88	1,045	759·90	51·47	811·37	1,020	69	1,089	817	44	861
Vizagapatam	261	29	290	178·39	15·52	193·91	881	91	972	163	19	182
Total ...	...	...	...	6,894·86	326·23	7,221·09	20,914	1,431	22,345	...	...	...

[6] SUBSIDIARY JAIL ACCOMMODATION IN EACH DISTRICT IN 1884.

Districts.	Number the jails will hold.			Average daily number of prisoners in all the jails put together.		
	Males.	Females.	Total.	Males.	Females.	Total.
Anantapore	61	27	88	13·24	2·14	15·38
Arcot, North	291	115	406	37·82	3·73	41·55
Arcot, South	264	114	378	43·54	2·88	46·42
Bellary	67	29	96	21·79	2·79	24·58
Canara, South	126	50	176	20·53	2·52	23·05
Chingleput	243	115	358	30·41	3·03	33·44
Coimbatore	188	90	278	52·58	3·08	55·66
Cuddapah	144	62	206	36·01	7·26	43·27
Ganjam	205	112	317	40·31	4·47	44·78
Godavery	138	81	219	35·82	2·95	38·77
Kistna	218	73	291	35·25	3·60	38·85
Kurnool	111	58	169	27·13	1·84	28·97
Madura	292	104	396	53·26	6·04	59·30
Malabar	272	116	388	85·55	2·59	88·14
Nellore	193	103	296	21·33	2·33	23·66
Neilgherry	14	10	24	6·10	·21	6·31
Salem	241	122	363	34·47	3·02	37·49
Tanjore	284	106	390	72·10	5·33	77·43
Tinnevelly	148	52	200	37·94	1·88	39·82
Trichinopoly	159	45	204	38·07	1·63	39·70
Vizagapatam	151	89	240	54·43	8·08	62·51
Total ...	3,810	1,673	5,483	797·68	71·40	869·08

221. The central jails, with the exception of that at Salem and the Penitentiary at Madras, are intended for the reception of prisoners sentenced to rigorous imprisonment for periods in excess of twelve months. The jail at Salem and the Penitentiary receive short-sentenced prisoners in addition to those of the description just specified. All prisoners sentenced to imprisonment for periods exceeding thirty days are committed to district jails, and such of them as are long-sentenced prisoners are transferred to the central jail of the circle at the expiration of their time of appeal. At the stations where the central jails are situated, prisoners sentenced for periods extending beyond one year are committed direct to these jails. Transfers are made periodically by the central office in the following manner. Superintendents of district jails enter in the monthly return of convicts a memorandum showing the number of long-sentenced convicts in their jails, and also the number whose time for appeal has expired; these memoranda are compared with the returns from the central jails, and the transfers are then ordered accordingly. Every convict is sent to the central jail of his own district, unless it is found necessary to send him elsewhere owing to want of accommodation or for some other reason. The central jail at Cannanore is utilized also for the reception of Madras convicts sentenced to transportation but who are not to be deported. Subsidiary jails are places of confinement for persons committed to custody pending preliminary investigation before the Magistracy, and for criminal prisoners sentenced to less than one month's imprisonment.

222. Classification of Prisoners.—Under the rules prescribed in the new Madras Jail Code prisoners are divided into the following classes; convicts sentenced to transportation, convicts sentenced to rigorous imprisonment, simple imprisonment prisoners, under-trial prisoners, civil prisoners and civil debtors, and State prisoners. So far as the construction of the prisons and space admit, the first two classes are separated from the last four, and these latter from one another. As to classification under the remission system, a convict sentenced to two years' rigorous imprisonment and upwards, during his term of imprisonment is required to pass through the classes shown at foot.[7] His promotion and progress through the successive stages or classes are dependent upon good conduct. Maistries are selected from convicts of the first class who have completed eighteen months of their imprisonment. Convict warders are selected from prisoners who have served one year as maistry. Convict work-overseers may be selected from convicts of the first class. Caste is recognized in jails, but only to the extent of providing suitable cooks for all classes of prisoners and the exemption from scavengering and shoe-making of all, except Pariahs, Chucklers, Yanaudies, and Koravars.

223. Penal Labor.—Penal labor is carried out in the most complete way in central jails. Convicts on first admission into central jails are put to the hardest description of labor for which they are fit, are gradually promoted to work of a less severe character, and finally are sent to the manufactories. The intramural labor of central jails other than that of the manufactories consists in sawing timber, pounding cocoanut husks, picking coir, raggy and wheat grinding, in making ordinary repairs to the prison buildings, in drawing water, cooking food, and in conducting ordinary menial duties. The extramural labor consists in quarrying and carting stone and lime, in digging gravel, in excavating tanks and wells, in ploughing and tilling jail lands, in gardening and husbandry, and in hauling dry earth for conservancy purposes. Most labor however in central jails is intramural. The employment of prisoners in district jails is of a somewhat different character from that of prisoners in central jails, inasmuch as it is not so strictly intramural. Industrial labor must always be carried on at a disadvantage when a prisoner is sentenced to a short term, and the difficult problem in these cases arises, of providing suitable

[7] Classification of Prisoners under the Remission System.

Eight months at 3 marks a day, 240 × 3 = 720 — 68 marks for 34 Sundays = 652 marks.	*Third Class*, in which he must earn 652 marks before being promoted to	Minimum period with good conduct and extra industry and diligence.
Six months at 3 marks a day, 180 × 3 = 540 — 50 marks for 25 Sundays = 490 marks.	*Second Class*, in which he must earn 490 marks before being promoted to	
Four months at 3 marks a day, 120 × 3 = 360 — 32 marks for 16 Sundays = 328 marks.	*First Class*.—Convicts in the first class must earn 328 marks in that class before becoming eligible for promotion to convict maistry or convict work-overseer.	

employment which shall at once fulfil the necessary conditions of really punitive labor and at the same time be remunerative. District jail labor is however approximated to central jail labor as much as possible. In subsidiary jails it is the duty of the officer in executive charge to give effect to sentences of rigorous imprisonment by providing penal employment as best he can within the precincts of the jail enclosure. With the exception of stone-breaking and road-making little can be done in subsidiary jails. Gangs of prisoners are occasionally hired by municipalities. Grants of convict labor are also sometimes made by order of Government to those bodies without payment on sufficient reason being shown. In these cases the gangs are employed in such work as making and repairing roads, in clearing drains, in filling up ditches on works of reclamation of land, in digging tanks, removing prickly-pear, &c.

224. In September 1882 the Government of India prescribed a policy of restriction as regards jail manufactures. Previously these had, during a few years, been considerably extended, and much attention was bestowed on this branch of jail administration; not only with a view to recouping, as far as possible, the cost of the prisoners' custody and maintenance in prison, but also to afford the prisoner himself the means of livelihood on leaving jail. On the other hand the employment of prisoners on useful trades and manufactures was not allowed to interfere with the enforcement of discipline and the exaction of a proper amount of penal labor. Endeavors were specially made to utilize prison labor for the production of articles required by the public service. A large quantity of cotton cloth, woollen blankets, boots and sandals was supplied annually for the Police. Other public departments were supplied with carpets, tent materials, horse blankets and carpenter's work. In order to remove all obstacles to the spontaneous growth of industries and to do away with competition between State and private capital, jail manufactures are now limited to a certain number of authorised industries, prices being fixed according to rules framed to prevent detrimental competition with private enterprise. Whilst on the one hand the jails have to compete on strictly even terms, as regards price and quality, with private manufacturers, on the other hand the use of steam machinery has been prohibited and that of hand-worked machinery restricted. The principle has been adopted that whilst jail labor should, as a rule, be productive it need not be made as productive as possible. Jails have also to compete on equal terms for the supply of public departments, no preference being shown for jail manufactures. Printing and book-binding are executed in the Penitentiary at Madras under the supervision of the Superintendent of the Government Press. European convicts and military prisoners confined in the Presidency jail and in the European prison at Ootacamund are employed in coir mat-making and coir-picking, in carpenter and smith's work, in boot and shoe making, and in stone breaking.

225. Remission System.—A new remission system came into force in January 1885 which may be explained briefly as follows. The convict is entitled to a remission of one day of his sentence for every 24 marks earned by him. He commences to earn marks on the first day of the month following that in which he was sentenced. He may earn three marks daily, one for thoroughly good conduct and one for industry and the exact and skilful performance of the daily task, and an extra mark for every eighth part of the daily task in excess of such task or for special diligence when the work does not admit of being measured. On commencing to earn marks he is admitted into the third class, in which he must earn 652 marks and remain at least eight months before he can be promoted to the second class. In the second class he must remain six months and earn 490 marks before he can be promoted to the first class. He must be at least four months in the first class and have earned 328 marks before he becomes eligible for appointment to the grade of convict officer maistry. After a year of such service as maistry he is eligible for the post of convict warder. Convict work-overseers may be selected from convicts of the first class or from amongst the maistries or convict warders. Convict warders, work-overseers and maistries earn five, four and three marks a day, respectively, and promotion to these grades carries with it certain privileges consisting in more frequent communication by visit or letter with friends, the wearing of turbans, distinctive clothing and badges. Convict warders and work-overseers are also permitted to mess and have sleeping accommo-

dation apart from the other convicts. Special marks may be given for special services to the number of 50 in a district jail and 100 in a central jail, a report being made to the Inspector-General of Jails setting forth the grounds of each award. The Inspector-General of Jails has the power to sanction awards of higher numbers of marks, but takes the orders of Government when he proposes to award more than 500. Marks may be forfeited for misconduct, but the actual remission earned is recorded quarterly and cannot be cancelled except by order of the Inspector-General of Jails for grave breach of rules or other offence. The discipline observed in jails towards re-convicted and habitual offenders does not differ from that observed towards other prisoners. Re-convicted prisoners are not debarred from earning remission, and in this respect the previous career and character of a prisoner makes no difference in the treatment he is subject to. It rests with the Criminal Courts of justice in awarding the sentence to take into consideration whether the prisoner has been previously a criminal, and it is not left to the discretion of the prison authorities to enhance the severity of the punishment.

226. Punishment for Misconduct.—Acts of misconduct are followed by forfeiture of remission, degradation to a lower class with loss of privileges, separate confinement, reduction in diet, corporal punishment and other punishments. The power of punishing a prisoner for breaches of prison rules resides only in the superintendent. The limits of punishment are laid down in the Criminal Procedure Code and in the Jail Code. Criminal offences committed in jail are punished by the courts of justice, with the exception that no person who has been once punished under the provisions of the Madras Jails Act can be again punished for the same offence in any other way, or by any other authority. The superintendent of the jail is legally bound to record the particulars of all offences and punishments in a prescribed form.

227. Dietary and Sanitary.—The diet of prisoners is fixed at the minimum necessary to enable a man to execute the work required of him; if he should be idle and not execute his work, the amount of food is reduced. Care is taken to provide a daily issue of wholesome vegetables and condiments. Although the diet is wholesome in character and sufficient in quantity, it is recognised as being coarse food, and nothing partaking of the nature of indulgence enters into its composition. To nearly every jail is attached a garden in which the vegetables required for consumption by the prisoners are grown. The jail gardens provide suitable occupation for the elderly, infirm and convalescent convicts. The table at foot [8] shows the death-rate amongst all classes of prisoners in the jails of the

[8] Death-rate in Jails for a period of 26 years.

Years.	Average daily number of prisoners of all classes.	Number of deaths amongst all classes of prisoners.	Death-rate per thousand of all classes of prisoners.	Mean of each triennial period.
1859-60	6,098	506	82·9	
1860-61	5,338	360	67·4	81·1
1861-62	6,687	622	93·0	
1862-63	7,557	676	89·4	
1863-64	7,492	824	109·9	108·7
1864-65	7,855	998	127·0	
1865	8,150	1,055	129·4	
1866-67	9,808·86	1,134	115·6	95·8
1867-68	9,668·43	410	42·4	
1868-69	10,152·64	357	35·1	
1869-70	9,933·39	388	39·0	33·8
1870	9,621·47	264	27·4	
1871	9,364·47	173	18·4	
1872	9,376·84	208	22·1	22·9
1873	9,314·81	264	28·3	
1874	9,923·23	266	26·8	
1875	9,890·69	386	39·0	36·0
1876	10,926·25	464	42·4	
1877	20,678·90	3,593	173·7	
1878	21,389·77	2,688	125·6	118·5
1879	15,377·16	866	56·3	
1880	12,202·86	530	43·4	
1881	10,589·36	434	40·9	42·3
1882	8,877·35	379	42·6	
1883	8,515·26	244	28·6	...
1884	8,090·17	164	20·2	...

Madras Presidency for the last twenty-six years. When it is considered that the bulk of the criminal population is composed of men with constitutions impaired by excess, the statistics of mortality show favorable results. The death-rates during 1877 and 1878 were exceptional on account of the famine.

228. MORALITY.—The education of prisoners in jails is regulated by the prison rules. It is of an elementary character, and care is taken that it shall not lead to relaxation of sentences, or to interference with the regular duties and work of the jail. The education of all prisoners was formerly required by the jail rules of the Presidency promulgated in 1865. Instruction is now limited to adults under twenty-four years of age, and to those prisoners to whom it will be of some practical use on release. Teachers are selected from amongst well-behaved convicts competent to instruct, but difficulty is experienced in finding men possessing the necessary qualifications. Young criminals sentenced to more than three months' imprisonment are generally transferred to the nearest central jail. In all central jails, except Salem, there is separate accommodation for juveniles. Those sentenced to shorter terms of imprisonment are confined in the district jails. In some of these the accommodation for juveniles is still unsatisfactory, but in all the new district jails a separate block has been provided. Under the existing law, section 318, Act X of 1872, a youthful offender sentenced to imprisonment may be confined in a reformatory for such period as his sentence continues. The Government have taken up 54 acres of land in the vicinity of Madras upon which a reformatory school for juveniles under the provisions of India Act V of 1876 is about to be erected.

229. STATISTICS.—The total number of prisoners admitted into the several central, district and subsidiary jails of this Presidency during the calendar year 1883 was 50,332, deducting as usual the prisoners received by transfer. The number of male convicts was 21,347 and of female convicts 2,766, at the commencement of the year there were 8,507 convicts of both sexes in confinement; 25,280 were released or otherwise disposed of, leaving 7,340 convicts remaining in the jails on the 31st December 1883. Of the foreign convicts 10 were Chinese and 197 Burmese. There were also 5 State prisoners. The total amount expended in guarding and maintaining the prisoners confined in the several central and district jails, excluding the outlay on construction of new jails, or on additions, alterations and repairs, and also of charges for inspection and general superintendence, was Rupees 6,43,251. The amount expended on account of subsidiary jails was Rupees 59,944. The total cost of maintenance was Rupees 7,03,195 or Rupees 89-9-0 per head, from which a sum of Rupees 1,05,460, being the cash earnings of convicts sentenced to labor, is deducted, leaving a net cost to Government of Rupees 5,97,735 or Rupees 70-3-0 net cost per head of average strength. The average cost of a convict in the central prisons was Rupees 81-9-0, in the district jails Rupees 79-6-0, in the European prison at Ootacamund Rupees 788-6-0, in the Debtors' jail at Madras Rupees 167-9-0, and in the subsidiary jails Rupees 84-15-0.

GOVERNMENT WORKHOUSE.

230. INTRODUCTION.—The original European Vagrancy Act, India No. XXI of 1869, was amended by India Act XXVIII of 1871, and both were repealed by India Act IX of 1874, which is now the law dealing with the subject. It applies only to persons of European extraction born in Europe, America, or in British colonies, and to the sons and grandsons of such persons. Eurasians or East Indians are specially excluded from its provisions. A vagrant, that is to say a person of European extraction, found asking for alms or wandering about without employment or visible means of subsistence, may be taken by any police officer to the nearest Justice of the Peace being a Presidency Magistrate or Magistrate of the first class or to a Superintendent of Police. The Magistrate after satisfying himself that the person is really a vagrant, will, unless there is an immediate prospect of his obtaining employment, draw up an order requiring him to go to a Government

workhouse. This order is a sufficient authority to the police for retaining him in their charge en route and to the governor of the workhouse for receiving and detaining him. There is at present only one Government workhouse in the Presidency, viz., that at Madras. The vagrancy rules having the force of law are given below.[1] The law under subject-heads is shown under the heads of "European Vagrant" and "Government Workhouse" in Vol. II, App. LIV.

231. NATURE OF THE INSTITUTION.—In 1867 the Madras Government appointed a committee to consider and report on the subject of European vagrancy. The committee reported that the matter could be adequately dealt with only by legislation, but as the facts elicited during the inquiry proved the absolute necessity for the immediate application of some relief, an appeal was made to the public. The appeal was liberally responded to, the Government promised a capitation grant, and "The European Stranger's Home" was established in a house at Royapooram. The institution did useful work during its existence of about three-and-a-half years, the average annual expenditure amounting to Rupees 7,200. When the European Vagrancy Act of 1869 came into force the "home" was at once made to answer some of the purposes of a Government workhouse, but it was not formally licensed as such and taken over by Government until March 1871. The building was then purchased by Government for Rupees 8,000, and has since (in 1881, 1882, and 1883) been improved and enlarged at a cost of over Rupees 20,000. The original building is now, with the exception of the "married quarters" and the kitchen, occupied entirely by the governor of the workhouse. The barrack, work-shed, lavatory, latrine and cells, which constitute the workhouse proper, are all new. The barrack, a roomy building 125 feet long by 50 feet broad, consists of two rooms with a verandah all round and has accommodation for twenty men. The workhouse is in the immediate charge of a governor on Rs. 150 a month under the control of a committee of management. The work of the inmates is the reduction of cocoanut husks to clean coir, and the task exacted from each man entails a fairly hard day's work. The coir is either sold as coir or made up into mats of various descriptions by a skilled native workman entertained for the purpose. The labour is not very profitable, but the account shows a small balance to credit. It is the duty of the governor and committee of management to use their utmost endeavours to obtain suitable employment for the inmates. If suitable employment cannot be obtained within a reasonable time, the vagrant may, according to circumstances, either be deported at the cost of the State after executing an agreement binding himself not to return to British India for five years, or be released.

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[1] VAGRANCY RULES HAVING THE FORCE OF LAW.—Under India Act IX of 1874, Sections 1, 10, 12, 14, 16, 17, 18, 25, 27, 34, and 36 (European Vagrancy Act) the following have the force of law:—(1) *Section* 1, the provisions of Sections 4 to 16 (both inclusive), 19, 20, 24 and 29 extended to the dominions of Princes and States in alliance with Her Majesty—Home Department Notification, dated 20th October 1870; Fort St. George Gazette, dated 8th November 1870. (2) *Section* 10, Superintendents of Police invested with jurisdiction and powers conferred by Part II of the Act on Justices of the Peace being Magistrates of first class—Public Notification, dated 9th March 1871; Fort St. George Gazette, 14th March 1871. (3) *Section* 12, certain officers appointed to form a committee of management and rules prescribed for the management and discipline of the workhouse at Madras—Public Notification, dated 9th March 1871; Fort St. George Gazette, dated 14th March 1871. (4) *Supplemental Rules for the Management of the Workhouse*—Notification, Public Department, dated 27th June 1879; Fort St. George Gazette, dated 1st July 1879. (5) Under *Sections* 5, 6, 7 *and* 24, rules prescribing forms of declaration and orders; procedure as to arrest and escort of vagrants; expenditure and the manner of its recovery; and permitting persons holding certificates under Section 9 to reside in the workhouse—Notifications, Fort St. George Gazette, dated 1st August 1871, and 19th September 1871. (6) *Section* 14, Governor of Madras Workhouse authorised to punish vagrants in the manner prescribed in Section 14, under the supervision and direction of the committee of management. (7) *Section* 17, Commissioner of Police and Justices of the Peace to obtain Government sanction before concluding an agreement with any vagrant—Public Notification, Fort St. George Gazette, dated 14th March 1871. (8) *Sections* 16 *and* 18, Commissioner of Police appointed to exercise and perform the powers and duties conferred and imposed on local Governments by Sections 16 and 18—Public Department, 4th March 1884; Fort St. George Gazette, dated 4th March 1884. (9) *Section* 25, Masters of steam or sailing-vessels belonging to companies or registered owners exempted from the operations of the first part of Section 25 in respect of first-class passengers—Home Department Notification, dated 20th October 1870, Fort St. George Gazette, 8th November 1870. (10) *Section* 27, prosecutions under the Act to be instituted and conducted ordinarily by Inspectors of Police, but in the absence of such officers Police station-house officers may act—Judicial Notification, Fort St. George Gazette, dated 31st May 1870. (11) *Section* 35, certain officers at Ramandroog, Sundoor and Poodoocottah appointed under this section—Government of India, Foreign Department Notification, 5th December 1871; Fort St. George Gazette, dated 19th December 1871. (12) *Section* 36, General rules—European or Eurasian Police officers to be employed in arresting and escorting vagrants; Police to disburse subsistence allowance on vagrants' account; certificates under Section 9 to be granted only under certain circumstances and to be in force for a limited period and within certain limits of place; in Presidency towns the Commissioner of Police and in other places Justices of the Peace being first-class Magistrates competent to execute agreement under Section 17; Local Government at port of embarkation to arrange for reception and custody of vagrants until deported; as a rule persons born in the country who have never left it not to be deported; others to be deported to the countries of which they are natives, but discretion is left on this point. Descriptive rolls and photographs to be kept of all persons deported—Home Department Notification, 20th October 1870; Fort St. George Gazette, dated 8th November 1870.

Vagrants are sometimes deported through Bombay, in communication with the Government of that Presidency.

232. STATISTICS.—The statement at foot [2] shows the number of vagrants who have passed through the workhouse during the thirteen years ending 31st December 1883, and the expenditure incurred since January 1874. The next statement [3] shows the working of the European Vagrancy Act in the several provinces of India during the seven years ending 31st December 1882. The large number of deportations and therefore high cost in Madras is due principally to the fact that vagrants have a tendency to work down to this Presidency from the rest of India, Madras Port being the natural outlet for Australia.

POLICE.

233. INTRODUCTION.—A sketch history of the origin and development of the present Madras Police force is given in the foot-note.[1]

234. LAW.—The Acts specially affecting the police are the following :—India Act VIII of 1851, ss. 4, 5 (Tolls on Roads and Bridges); India Act XIX of 1852, s. 21 (Abkarry, Madras Town); India Act XVIII of 1853, ss. 5, 8 (Sale of Spirits in Cantonments); India Act XXXVI of 1858, ss. 4—6 (Lunatic Asylums); India Act I of 1859, s. 86 (Merchant Seamen); India Act XXIV of 1859, an Act for the better regulation of the Police within the territories subject to the Presidency

[2] STATISTICS OF MADRAS WORKHOUSE.

Years.	Remaining at close of previous year.	Admitted.	Total.	Discharged to employment.	Deported.	Released.	Otherwise disposed of.	Remaining at close of year.	Expenditure.
									RS. A. P.
1871	...	215	215	19	95	1	77	23	Not known.
1872	23	67	90	4	25	...	41	20	
1873	20	107	127	18	31	12	48	18	
1874	18	89	107	38	28	5	15	21	14,462 2 10
1875	21	110	131	57	22	3	28	21	18,341 0 10
1876	21	78	99	37	28	...	24	10	16,127 0 0
1877	10	106	116	66	15	...	21	14	14,064 0 0
1878	14	91	105	54	14	5	21	11	13,717 4 1
1879	11	92	103	21	39	6	13	24	20,861 5 10
1880	24	107	131	22	63	5	22	19	27,141 8 2
1881	19	85	104	22	63	3	7	9	25,848 10 10
1882	9	68	77	21	32	...	18	6	13,852 7 6
1883	6	49	55	11	15	1	18	10	10,315 11 0
	Total ...	1,264	...	390	470	41	353	...	......

[3] STATISTICS FOR SEVERAL PROVINCES, BROUGHT DOWN TO 31ST DECEMBER 1882.

—	Remaining at close of 1875.	Admitted since to workhouse.	Total.	Discharged to employment.	Released.	Deported.	Otherwise disposed of.	Cost.
								RS. A. P.
Madras	21	627	648	245	21	253	122	1,31,735 14 5
Bombay	22	638	660	324	...	51	263	56,346 7 11
Bengal	3	184	187	82	35	55	9	22,447 3 1
North-West Provinces.	6	211	217	59	32	27	94	21,029 1 8
Punjaub	1	135	136	67	9	...	49	11,871 11 7
Central Provinces ...	...	14	14	1	10	1	2	402 1 6
British Burmah ...	2	19	21	18	1	2	...	480 4 3
Coorg	...	2	2	...	...	2	...	15 0 0
Total ...	55	1,830	1,885	796	108	391	539	2,44,327 12 5

[1] SKETCH HISTORY OF THE MADRAS POLICE.—The system of police which was found to prevail throughout Southern India when the English first occupied it was the ancient hereditary Cauvaly system. Under this certain predatory tribes undertook to protect the property of the remainder and even to make good losses incurred by them. But on the other hand the Cauvalgars levied contributions and taxes from all property to which this system was applied. Their demands took different forms; for instance a portion of the crops, rate on houses, a transit duty on articles transported by the roads; and even a tax on professions, for the "moturpha" tax was originally a Cauvaly tax. It is not known precisely on what principle it was decided where this system should prevail and where not; probably it was a matter very much

of Fort St. George; India Act V of 1861, ss. 23, 25, 30, 31, 33, 41 (Police); Madras Act III of 1862, an Act for enabling the Commissioner of Police at Madras to make bye-laws for more effectually carrying out in the Town of Madras the objects of India Acts XIII of 1856 and XLVIII of 1860, and for the better and more effectual preservation of order therein; Madras Act VIII of 1867, an Act to incorporate the Police of the Town of Madras with the general Police of the Madras Presidency, to extend the jurisdiction of the Town Police Magistrates, and to amend and consolidate the provisions of Act XIII of 1856 (for regulating the Police of the Towns of Calcutta, Madras, Bombay) and of Act XLVIII of 1860 (to amend Act XIII of 1856); India Act V of 1869, Part III(*e*) (Native Articles of War); India Act VII of 1870, s. 19 (xvi) (Court Fees); India Act VIII of 1870, ss. 1, 2 (Murder of Female Infants); India Act I of 1871, ss. 10, 11, 14—17, 19 (Cattle Trespass); India Act V of 1871, s. 3 (Prisoners); India Act II of 1874, s. 66 (Administrator-General); India Act IV of 1875, s. 15 (Merchant Shipping); India Act I of 1876, s. 16 (Telegraphs); India Act I of 1878, ss. 14, 15, 17 (Opium); India Act VII of 1878, ss. 44, 52, 64, 78, 169 (Forests); India Act VIII of 1878, s. 184 (Sea Customs); India Act XI of 1878, s. 13 (Arms); India Act I of 1879, s. 33 (Stamps); India Act VI of 1879, s. 8 (Amending Act XI of 1876); India Act X of 1882 (Criminal Procedure); India Act XII of 1882, ss. 8, 9, 24 (Salt); Madras Act II of 1864, ss. 20, 52 (Recovery of Arrears of Revenue); Madras Act V of 1865 (Amending India Act XXIV of 1859); Madras Act VIII of 1865, ss. 19, 29, 43, 78 (Recovery of Rent); Madras Act II of 1866, ss. 15, 16 (Cattle Disease); Madras Act VI of 1867, ss. 12, 13 (Land Revenue, Madras Town); Madras Act VII of 1878, ss. 4—6 (Cost of Police); Madras Act VIII of 1878, s. 6 (Coffee Stealing); Madras Act I of 1881, ss. 2, 6—9, 12—14 (Madras Ports, Police); Madras Act I of 1882, ss. 3—24 (Salt Laws Amendment); Madras Act III of 1882, an Act to provide that an increase to the General Police Force shall be occasionally made at the expense of the inhabitants of the part of the country where such additional Police force may be employed; Madras Act V of 1882, s. 23 (Forests); and Madras Regulation XXV of 1802, s. 5 (Revenue Settlement); Madras Regulation XXIX of 1802, s. 11 (12) (Office of Curnum); Madras Regulation II of 1803, s. 31 (Collectors); Madras Regulation I of 1816, ss. 1—6 (Police, Tanjore), and Madras Regulation I of 1830, s. 3 (Suttee). The detailed Law relating to Police is shown under the heading "Police" in Vol. II, App. LIV.

235. CONSTITUTION OF DEPARTMENT.—The strength of the force as now constituted is given below.[2] The actual strength of the force on the 31st December

of geographical accident and mutual compromise. In the larger part of the Presidency, the Cauvaly system was in the main a useful and regulated village watch and ward, to which little exception could be taken; but in the southern Tamil districts the oppressive part of the system predominated. Here the heads of the Cauvaly races levied individual exactions of all kinds over wide areas, and with little or no regard for a 'quid pro quo' in the way of protection. Measures were taken, in the early stages of English administration, in the direction of suppressing such abuses. The inam lands of the Poligars were resumed and their levy of contributions was interdicted. Many years however elapsed before clandestine oppression was definitely put an end to. In all these cases the local village watch or 'stala cauval' itself was retained, and it constitutes the village police of the country at the present day, under whatever local appellation it is known. By Madras Regulation XI of 1816 the village police was placed under the head of the village, and became a valuable agent of the Magistrate in the administration of the country. Since the reorganization of the general police, the village police has been brought into effective co-operation with that body. The present police organization in the Madras Presidency has been in existence for a little less than twenty-five years. The report of the Torture Commission in 1855 made certain what had for some time previously been a matter of rumour and discussion, namely that there was urgent necessity for police reform in this Presidency. The Mofussil Police then existing were described by the Commission in very disparaging terms and a reform was at once projected. The Court of Directors in 1856 concurred in the views put forward by the Local Government, and the establishment of a department distinct from the Revenue and Magisterial departments, consisting of a Chief Commissioner with 20 District Superintendents and 20 Assistant Superintendents was sanctioned in a despatch of 9th June 1857. Mr. William Robinson of the Madras Civil Service, who had minutely studied the question of police organization in England and elsewhere, was appointed Chief Commissioner in 1858 and subsequently took the designation of Inspector-General of Police. The new constabulary was introduced in the district of North Arcot in 1859, and early in 1860 the work of reorganization was extended to all districts except those of the Northern Circars, where the measure was postponed till 1861. The new force was organized very much on the Irish model.

[2] CONSTITUTION OF DEPARTMENT.

Inspector-General and Supervising Staff (3 Deputy Inspectors-General and 1 Assistant Inspector-General) ...	5
Commissioner, Deputy and Assistant Commissioners, Madras Town ...	3
Superintendents ...	21
Assistant Superintendents ...	20
Inspectors ...	461
Sub-Inspectors ...	95
Constabulary of all ranks ...	21,861
Office establishments and other servants (not Police officers) ...	1,897
Total ...	24,363

1883 was 24,254. Of the above the following are employed on purely State services:—Salt Preventive Force, 113; Land Customs Force, 226; Jail Guards, 1,060—total 1,399. In addition to the above, 273 policemen are supplied to banks, public companies, and private individuals on payment. The cost of these men amounted in 1883 to Rupees 28,138. The total cost of the force was Rupees 37,61,381. The highest rank of constable is Head Constable, of which there are four grades, and the constables below that grade are divided into first class, second class and third class. The Sub-Inspectors are a probationary grade. The whole Police force of the Presidency, including the Police of the City of Madras, is under the direction and control of the Inspector-General of Police. The detailed management of the Police of the Madras Town is entrusted to the charge of a Commissioner of Police with one Deputy and one Assistant Commissioner under him. The mofussil districts are formed into ranges, and each range is placed under the immediate supervision of a Deputy Inspector-General. The three ranges, with the several districts in each range, are shown at foot.[3] Each district is under the immediate management of a Superintendent, who has one or two assistants according to the area, population, and local circumstances. Each district is divided into several divisions corresponding, as far as possible, with the boundaries of the revenue talooks and ranges of Subordinate Magistrates, and each division is in charge of an Inspector of Police. The chief office of the whole Police is at the Presidency Town, under the immediate charge of the Assistant Inspector-General with an office establishment. The district offices are at the head stations of the district, under the immediate management of the Superintendent, who is allowed an Inspector styled the Head-quarter Inspector, with a number of Police subordinates employed for the transaction of office work. The head station of a talook is selected as the central station of the Police division, and also the head-quarters of the Divisional Inspector. The charges of Superintendents and Assistant Superintendents are shown in Vol. II, App. LXVII. The members of the force are regularly drilled, and the corps generally is so organized as to be capable of supplying on an emergency a small body of irregulars for quasi-military purposes. The drill is that for the Native Army up to manual and platoon exercises, with the addition of baton exercise and lining streets to clear crowds. Punishments of the force are by conviction before Magistrates under the Police Act, No. XXIV of 1859 and the Penal Code, or else by departmental notice. No Police officer convicted by a Criminal Court of any offence and sentenced to imprisonment is re-admitted to the service without the special order of the Inspector-General. Even if acquitted under such circumstances a Police officer is liable to be discharged from the service on the ground that there is moral evidence of his guilt. Police officers sentenced by a Criminal Court to fine without other punishment are not on that account dismissed, unless the circumstances of the case are such as render it necessary. Departmental punishments are made by black marks, fine, reduction, and dismissal. All punishments are entered in a defaulter book. Appeal in all cases lies from the decision of the Superintendent to the Deputy Inspector-General and from him to the Inspector-General. The uniform of the force is worn at all times by every individual of the force, unless temporarily dispensed with under special orders and for the better performance of some special duty. Two suits of white drill clothing are supplied to each Constable and Head Constable yearly and a woollen coat every third year. Inspectors, District Superintendents and their Assistants supply their own uniform according to an approved pattern. The different grades below Sub-Inspectors are distinguished by badges as in the Native Army. One-third of the force is armed with smooth-bore carbines, and two-thirds with swords. Every man is provided with a baton. The jail guards and

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[3] POLICE RANGES WITH DISTRICTS CONTAINED IN THEM.

Northern Range ...	Central Range ...	Southern Range ...
Ganjam.	Nellore.	Tanjore.
Vizagapatam	Bellary.	Trichinopoly.
Jeypore.	Anantapore.	Madura.
Godavery.	Kurnool.	Tinnevelly.
Kistna.	Cuddapah.	Salem.
	North Arcot.	Coimbatore.
	Chingleput.	Malabar.
	South Arcot.	South Canara.

reserve at district head-quarters are armed with carbines. Every article of dress or appointment, lodgings, &c., which may have been supplied to a Police officer at public cost has to be immediately delivered up or vacated when he ceases to belong to the Police force or has been suspended. At the head-quarters of each district is a school supervised by a specially selected Inspector, or Head Constable, and through this all recruits have to pass before being sent to divisions. Station-house officers are called in from time to time to go through the examination prescribed for their rank. Three courses are laid down. Every member of the constabulary is enlisted on condition of serving and residing wherever he may be required; but for practical purposes the general body is broken up into 22 district corps, including Madras city, and is recruited and worked as so many separate bodies within their respective districts. The men are generally for obvious reasons retained within the districts with which they are respectively best acquainted. Physical fitness has to be certified to by the Zillah Surgeon. No man is entertained who is older than 25 or younger than 18 years, except under special circumstances, and then only under sanction of the Inspector-General. A Police officer devotes his whole time to the Police service, and takes part in no trade or calling unless expressly permitted. He conforms himself implicitly to all rules which are from time to time made for the regulation and good order of the service. No Police officer is allowed, under any pretext whatever, to have money transactions with any other Police officer. They may not withdraw from the service without distinct permission, or until the expiration of two months after giving warning of their intention to do so. They may not on any occasion, or under any pretext whatever, directly or indirectly take or receive any present, gratuity or fee without the express permission of the District Superintendent. The District Magistrate is invariably consulted with regard to the entertainment of Inspectors, and his opinion is submitted to the Inspector-General of Police through the Deputy Inspector-General of Police with the nominal roll, which is not passed unless this preliminary step has been taken. The examination for Inspectors is one of the Uncovenanted Service Special Tests. It is the same as that for Sub-Magistrates, with the addition of a departmental paper. Assistant Superintendents before being declared qualified for the service are required to pass such an examination as proves that they possess a really good colloquial familiarity with the vernacular of the district. They are likewise required to pass an examination in Criminal Law and Law of Evidence. The men are taken as they present themselves from the local rural and agricultural classes provided they come up to standard measurements of 5 feet 5 inches in height and 32 inches round the chest, which are generally the same as those for the Native Army, and provided they can read and write. For the district reserves the height is 5 feet 7 inches. Low caste men are rarely enlisted unless in exceptional places, as for instance in hill tracts. The army for some while furnished the officers, and a few retired British officers have joined since that supply ceased; but at present there is no recognized source from which officers can be regularly drawn. The statement at foot shows the castes of Policemen admitted during an average of three years, 1881 to 1883.[4] The scale

[4] CASTES OF POLICE FORCE.

Districts.	Christians.	Mahomedans.	Hindoos.						
			Brahmins.	Rajpoots.	Nayars.	Teeyars.	Ooriyahs.	Pariahs.	Hindoos of all other castes.
1	2	3	4	5	6	7	8	9	10
Madras City	74	276	37	43	...	...	...	97	688
Ganjam	23	68	12	10	...	...	427	9	629
Vizagapatam	19	111	59	17	...	...	157	15	863
Jeypore	7	9	5	1	...	...	316	1	51
Godavery	17	420	25	41	...	...	2	21	824
Kistna	11	372	53	36	...	...	...	2	692
Total ...	77	980	154	105	...	...	902	48	3,059

of pay for the force is given below.[5] Every Inspector is mounted and a part of his salary is received in the form of horse allowance. Military officers come under the general furlough regulations. The officers who are not military men and all others whose pay is 20 rupees per mensem come under the leave rules for the Uncovenanted service. Constables and the lower ranks are granted occasional casual or sick leave by Superintendents according to circumstances. The Superannuation Funds established under Acts XXIV of 1859 and XIII of 1856, and amalgamated together by Act VIII of 1867, have been abolished by Act X of 1869. To members of the Police Force on pay above Rupees 20 a month pensions and gratuities are awarded under the rules applicable to Uncovenanted servants of Government in other departments; except that service in the Police counts under a special rule of the Pension Code as eligible service, even though the man rose from the ranks on pay below Rupees 10 a month. The lower ranks, Head Constables and men, are required to reside in lines or huts near together, and in the immediate vicinity of the station-house wherever possible. This arrangement is indispensable for proper discipline and supervision, and in order that the men may be at hand to meet emergency and ordinary duty. Hutting is provided by Government and rent is charged to provide for the necessary repairs. Inspectors of all grades generally provide their own lodging, but are required to

Districts.	Christians.	Mahomedans.	Hindoos.						
			Brahmins.	Rajpoots.	Nayars.	Teeyars.	Ooriyahs	Pariahs.	Hindoos of all other castes.
1	2	3	4	5	6	7	8	9	10
Nellore	12	474	25	66	...	...	...	4	536
Kurnool	12	470	41	68	...	...	...	2	315
Bellary	18	389	52	45	...	...	...	21	354
Anantapore	3	153	18	11	...	...	...	...	150
Cuddapah	13	497	21	32	...	...	...	1	493
North Arcot	18	459	51	33	...	...	...	7	741
Chingleput	48	263	7	15	...	...	...	21	430
South Arcot	36	423	13	30	...	...	...	14	636
Total ...	160	3,128	228	300	...	...	...	70	3,655
Tanjore	51	133	31	24	...	...	...	...	1,256
Trichinopoly	36	208	13	21	...	...	...	5	525
Madura	27	307	28	3	...	...	...	5	803
Tinnevelly	68	167	8	1	...	...	...	4	690
Salem	51	418	73	23	...	...	...	7	616
Coimbatore	29	259	57	31	1	...	...	1	580
Neilgherries	17	60	2	7	...	...	...	2	96
Malabar	58	220	3	14	919	224	...	11	25
South Canara	166	100	47	2	6	73	12	...	277
Total ...	503	1,872	262	126	926	297	12	35	4,868
Grand Total ...	814	6,256	681	574	926	297	914	250	12,270

[5] SCALE OF PAY FOR POLICE FORCE.

	RS.	A.	P.
Inspector-General of Police	2,500	0	0
Commissioner of Police, Madras Town ...	1,500	0	0
Deputy Inspectors-General of Police ...	1,200	0	0
Superintendents of Police, 1st Grade ...	1,000	0	0
Assistant Inspector-General of Police ...	900	0	0
Superintendents of Police, 2nd Grade ...	800	0	0
Deputy Commissioner of Police, Madras Town	750	0	0
Superintendents of Police, 3rd Grade ...	700	0	0
Assistant Superintendents of Police, Hill Range	600	0	0
Assistant Superintendents of Police ...	500	0	0
Assistant Commissioner of Police, Madras Town	350 to 400	0	0
First-class Inspectors acting as Assistant Superintendents of Police	400	0	0
Chief Inspector	350	0	0
Special Inspector	300	0	0
Inspectors of Police, 1st Class	200	0	0
Do. 2nd Class	150	0	0
Do. 3rd Class	100	0	0

	RS.	A.	P.
Head Serjeant, Madras Town	85	0	0
Inspectors of Police, 4th Class	75	0	0
Serjeants, Madras Town	60	0	0
European Head Constables, Coimbatore, North Arcot and Trichinopoly	55	0	0
Sub-Inspector, Ooty	52	0	0
Inspectors of Police, 5th Class	50	0	0
Do. 6th Class, and Sub-Inspectors, Madras Town	40	0	0
Sub-Inspectors	30	0	0
European Head Constables	37 to 30	0	0
Head Constables, 1st Grade	25	0	0
Do. 2nd Grade	20	0	0
Do. 3rd Grade	15	0	0
Do. 4th Grade	12	0	0
Constables, 1st Class, Madras Town ...	9	0	0
Do. do. in Districts	8	0	0
Do. 2nd Class	7	0	0
Do. 3rd Class	6	8	0
Village Watchers	3 to 4	0	0

reside within the limits of their range of duty, about which they are expected to be continually moving. Where quarters have been built by Government, Inspectors pay rent.

236. PROCEDURE OF DEPARTMENT, AND WORK DONE BY IT.—The duties undertaken by the Police are, the preservation of the peace, the prevention of crimes and offences, the detection and apprehension of offenders, the discovery of stolen property, the collection of evidence against persons accused of grave crimes and the bringing them before the Magistracy and Courts, the apprehending and watching of vagrants and suspicious characters, the patrol of the country and public roads, the prevention of nuisances, laying information before the Magistracy of offences of a public nature committed against any existing law, the inspection and verification of weights and measures, the management of public pounds, the service and execution of summonses and warrants and other lawful processes and orders issued by the Magistracy or Courts in any criminal matter, the safe custody of prisoners under trial or remanded by the Magistracy, escort and guarding of treasure and convicts, and maintaining a constant observation of every part of the country with a view to daily transmission and mutual communication of authentic intelligence on matters of public importance. Besides these ordinary duties, the Police undertake the guarding of jails, the prevention of smuggling on foreign frontiers, the guarding of distilleries under the Excise Act, and the working of the Municipal, Cantonment, and Contagious Diseases Acts. The duties formerly performed by the Meriah agency in Ganjam are now performed by the Police, who occupy all the hill tracts in the Northern Circars. The Police also hold all the frontier posts formerly held by detachments of Madras troops. There is no separate detective branch. In grave cases where the ordinary Police fail to obtain clues, officers of superior rank and special aptitude are detailed to work them. A careful and accurate registration of known depredators, wandering gangs, and of the criminal classes generally is maintained throughout the Presidency, and is of the greatest assistance in tracing crime. The Village Police are also of much use. The Police make inquiries as far as possible by means of personal investigation, as opposed to the practice of summoning parties to the station-house. If a disclosure be volunteered by any person in the custody of a Police officer, the latter makes a memorandum of the nature of the disclosure, in the precise words used by the prisoner. The Police officer reads the memorandum over to the prisoner if possible, but does not take the prisoner's signature on the paper. The memorandum is made with a view to the Police officer refreshing his memory as to the precise words used, in the event of his being required to give oral evidence of the admissions made, under section 27 of the Evidence Act. The Police are directed never to prosecute upon a confession alone, however spontaneously given. The only use they are allowed to make of admissions made by the accused is to follow up the clue so given. "Cognizable" crime is defined by the law, and is such as the Police may inquire into without reference by magisterial authority. "Non-cognizable" crime can be investigated by the Police only on receiving orders from the Magistracy. The former consists as a rule of grave offences against the person, property, or the State; and are mostly the cases in which the Magistracy are instructed ordinarily to issue a warrant in the first instance for the apprehension of an offender. The latter consist of minor offences, and are such as the Magistracy are directed ordinarily to issue summonses for. The table at foot shows Police procedure as to arrest, report, &c., under cognizable cases, non-cognizable cases, and cases where parties are detained by the Police.[6] The

[6] POLICE PROCEDURE IN COGNIZABLE AND NON-COGNIZABLE CASES.

Circumstances.	Procedure.
Cognizable Cases.	
The facts appear to constitute a cognizable offence. No person accused, or if accused not arrested Station-house Officer determines to enter on an investigation either at the scene of the alleged crime (section 157) or at the Station-house. (Proviso *a*.)	Send original information whether it be Village Magistrate's Report, or the information written or dictated by complainant or informant with Occurrence Report to the Magistrate having jurisdiction.

Police officer in charge of a case sees it through the Court of the Magistrate trying it. Superintendents and Assistants are enjoined to attend the monthly criminal sessions at head-quarters during the trial of important cases. The table at foot shows the cases which occurred in 1881, 1882 and 1883 and the results of Police action therein.[7] At each jail there is a permanent Police guard furnishing the usual fixed number of sentries over the buildings day and night, and this is relieved

Circumstances.	Procedure.
The facts do not appear to constitute an offence, or the complaint is so evidently false that there are no grounds for entering on an investigation. (Proviso *b*.)	Send original information whether it be Village Magistrate's Report, or the information written or dictated by complainant or informant with Occurrence Report to the Magistrate having jurisdiction, explaining reasons for not investigating.
Accused arrested on sufficient grounds. Investigation cannot be completed within 24 hours.	Send accused at once with copy of the entries regarding the case in Station-house Report to the nearest Magistrate. (Spare Station-house Report forms to be supplied for the purpose.) N.B.—If accused is forwarded to a Magistrate other than the Magistrate having jurisdiction, Occurrence Report as in case 1 must be sent to the latter.
On completion of the investigation the case is found to be true.	Send Received Charge Sheet to the Magistrate having jurisdiction.
On completion of the investigation the case is found to be false.	Send Referred Charge Sheet to the Magistrate having jurisdiction through Divisional Inspector.
Accused arrested. Inquiry likely to be completed within 24 hours.	Detain accused. Send Occurrence Report as in case 1.
On completion of investigation case is found to be true.	Send accused (or in bailable cases, bail bond) with Received Charge Sheet to Magistrate having jurisdiction.
On completion of investigation case is found to be false or evidence is insufficient to justify transmission of accused to Magistrate.	Release accused and send Referred Charge Sheet through Divisional Inspector to Magistrate having jurisdiction.
Accused not found, but after investigation the case is found to be true and such facts elicited as would justify his arrest.	Send Received Charge Sheet to Magistrate having jurisdiction asking for warrant.
Accused not arrested or no person accused. After full investigation it is found that no offence has been committed.	Send Referred Charge Sheet through Divisional Inspector to the Magistrate having jurisdiction.
After investigation it is found that the facts constitute an offence of a less grave nature than at first alleged: e.g., charge of robbery (grievous hurt) found to amount in fact only to theft (simple hurt).	Send Referred Charge Sheet through Divisional Inspector to Magistrate having jurisdiction asking authority to correct the record.
Non-Cognizable Cases.	
After investigation ordered by Magistrate case found to be true.	Send Received Charge Sheet to Magistrate by whom case was referred.
After investigation ordered by Magistrate case found to be false.	Send Referred Charge Sheet to Magistrate by whom case was referred through Divisional Inspector.
Accused arrested under section 57, name and residence not ascertained within 24 hours.	Send accused with Occurrence Report to Magistrate having jurisdiction.
Accused arrested under section 57, name and residence ascertained within 24 hours.	Release accused and send bond with Occurrence Report to Magistrate having jurisdiction.

[7] STATISTICS OF CASES SHOWING ACTION OF POLICE DURING THREE YEARS.

Ranges.	Districts.	Cases: Reported.	Cases: Detected.	Persons: Arrested.	Persons: Convicted.	Property: Lost.	Property: Recovered.
1	2	3	4	5	6	7	8
						RS.	RS.
	Madras City	34,099	26,091	42,125	32,043	56,320	17,358
Northern Range.	Ganjam	8,038	3,544	14,588	5,471	51,957	9,831
	Vizagapatam	8,200	3,533	18,530	7,315	80,281	21,313
	Jeypore	985	438	1,401	702	17,455	4,472
	Godavery	7,599	3,862	17,541	5,548	72,107	16,538
	Kistna	9,787	4,460	15,692	6,161	53,626	10,657
	Total ...	34,609	15,837	67,752	25,197	2,75,426	62,811
Central Range ...	Nellore	6,498	3,343	11,703	4,796	42,157	8,106
	Kurnool	4,215	2,103	8,456	3,162	55,207	9,683
	Bellary	7,588	5,195	1,436	5,911	66,234	6,910
	Anantapore	3,348	1,817	6,078	2,400	42,579	4,880
	Cuddapah	5,305	2,346	11,989	4,154	76,500	12,882
	North Arcot	8,015	3,446	15,755	5,000	65,505	14,820
	Chingleput	9,273	6,155	14,150	7,703	38,145	7,763
	South Arcot	7,083	4,312	15,357	5,729	33,527	7,846
	Total ...	51,325	28,717	84,924	38,855	4,19,854	72,890

weekly. Guards are also furnished by the Police over gangs extramurally employed at the rate of one Policeman to seven convicts. A statement of prisoners and guards on an average for the three years 1881 to 1883 is given below.[8] In all cases of death from unknown, violent, and suspicious causes, an inquest is held by the village headman, and is attended by the Police who are bound to render every assistance to the magisterial authorities. Orderlies on a sanctioned scale are furnished by the department to all Magistrates. They are employed solely for official purposes. They are relieved weekly. All processes of a criminal nature are served by the Police. Four hundred men were in 1878 added to the force to enable this duty to be better performed than before. The pay of these men is more than covered by the fees charged for the process. The statement at foot shows the number of processes served on average for the three years

Ranges.	Districts.	Cases		Persons		Property	
		Reported.	Detected.	Arrested.	Convicted.	Lost.	Recovered.
1	2	3	4	5	6	7	8
						RS.	RS.
Southern Range.	Tanjore	17,279	10,538	27,339	12,188	94,999	16,112
	Trichinopoly	8,823	5,636	14,943	6,935	35,604	6,282
	Madura	14,848	9,003	33,182	10,957	59,388	13,893
	Tinnevelly	6,875	3,700	13,761	5,735	60,140	9,653
	Salem	6,287	3,086	12,745	5,074	53,611	15,289
	Coimbatore	6,279	2,910	12,248	4,183	34,238	9,685
	Neilgherries	1,869	1,232	2,594	1,647	5,618	2,398
	Malabar	17,912	9,610	29,700	12,212	72,998	20,282
	South Canara	2,895	1,722	6,525	2,427	32,261	11,727
	Total ...	83,067	47,437	153,037	61,358	4,48,857	1,05,321
	Grand Total ...	203,100	118,082	347,838	157,453	12,00,457	2,58,380

[8] STATEMENT OF PRISONERS AND GUARDS.

Ranges.	Districts.	Average Number of Prisoners.	Police Guards.	
			Number.	Cost.
1	2	3	4	5
				RS. A. P.
	Madras City	671	56	6,734 0 0
Northern Range ...	Ganjam	227	43	4,717 11 7
	Vizagapatam	337	51	4,456 2 8
	Jeypore	...	...	...
	Godavery	1,002	110	12,328 7 3
	Kistna	133	21	2,563 8 6
	Total ...	1,699	225	24,065 14 0
Central Range ...	Nellore	149	29	3,389 5 4
	Kurnool	83	25	2,434 5 4
	Bellary	336	39	4,557 14 3
	Anantapore	...	...	...
	Cuddapah	127	28	3,575 5 4
	North Arcot	1,103	118	13,675 0 0
	Chingleput	117	24	2,633 2 8
	South Arcot	220	29	3,888 6 10
	Total ...	2,135	292	34,153 7 9
Southern Range ...	Tanjore	231	47	5,678 10 8
	Trichinopoly	907	129	14,313 5 4
	Madura	284	36	4,290 0 0
	Tinnevelly	191	27	3,491 6 0
	Salem	524	47	6,460 1 4
	Coimbatore	1,040	112	14,758 0 0
	Neilgherries	...	...	...
	Malabar	894	104	13,692 7 2
	South Canara	112	21	2,316 8 0
	Total ...	4,183	522	65,000 6 6
	Grand Total ...	8,688	1,095	1,29,953 12 3

1881 to 1883.[9] The Police Department compile all the statistics required by Government under the head of Crime and Offences, and portion of the statistics required under the head of Criminal Justice. For these matters the two next sections can be consulted.

CRIME AND OFFENCES.

237. CRIMINAL CLASSES AND THEIR HABITS.—The principal wandering criminal tribes and classes in the Madras Presidency are specified in the table at foot.[1] There are many other varieties of the vagrant class, but those specified are the most numerous and the most troublesome from the point of view of crime. The genuine northern Brinjarries are seldom found within the limits of this Presidency, and though they make their way at times through Bustar and Bood and down the Eastern Ghauts to the salt-pans of the Northern Circars, they are credited with very little of the crime of the districts (Ganjam, Godavery and Vizagapatam)

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[9] STATEMENT OF PROCESSES SERVED.

Ranges.	Districts.	Processes.	Ranges.	Districts.	Processes.
	Madras City	16,755	Southern Range.	Tanjore	61,007
Northern Range.	Ganjam	30,746		Trichinopoly	29,612
	Vizagapatam	35,504		Madura	42,077
	Jeypore	1,196		Tinnevelly	29,839
	Godavery	35,546		Salem	33,872
	Kistna	19,883		Coimbatore	23,875
	Total ...	122,875		Neilgherries	2,665
Central Range.	Nellore	20,260		Malabar	38,668
	Kurnool	16,983		South Canara	15,226
	Bellary	20,467			
	Anantapore	13,956			
	Cuddapah	12,154			
	North Arcot	38,711			
	Chingleput	21,540			
	South Arcot	31,223		Total ...	276,841
	Total ...	175,294		Grand Total ...	591,765

[1] PARTICULARS REGARDING WANDERING CRIMINAL CLASSES.

Name of caste or tribe.	Ostensible calling.	Habits, &c.
Brinjarries	Carriers of grain, salt, &c. ...	Foreigners; occasionally travel into the Madras Presidency.
Lumbaudies	Do. do. ...	Similar to, if not identical with, Brinjarries. Have numerous settlements in Bellary and range through many other districts, but are seldom found north of the Godavery, or in the south and west of the Presidency.
Soogalies	Do. do. ...	Another name by which Lumbaudies are known in certain districts.
Koravar, or Koorchar	Do. do. ...	No fixed habitation. They wander over the greater part of the Presidency, but do not touch the extreme north and south.
Yerkalar	Do. do. ...	Have numerous camp-settlements in Nellore, and ramble through the central districts.
Paumoolavandloo	Snake-charmers	Rove in small parties through nearly the entire Presidency.
Dommaravandloo	Tumblers, rope-dancers, jugglers, &c.	Do. do. do.
Dassaries	Veishnava mendicants. ...	Tramp through most districts.
Alagaries, or Capemarries ...	Wandering beggars, or pick-pockets.	Chiefly found in North Arcot and the central districts, where they have some settlements.
Yanaudies	Wood-cutters and occasionally perform menial services.	Abound in Nellore where they have numerous settlements and make excursions into the Kistna and Godavery districts. They are occasionally found in North Arcot, Salem and the Ceded Districts.

through which they pass on their way to the coast. Lumbaudies, in their appearance and characteristics, are closely allied to Brinjarries. Both are of the nomadic type and both are predatory. The women resemble gipsies in feature. The Lumbaudies of this Presidency are almost exclusively wanderers. In the Bellary district however they have numerous settlements. The great majority have no fixed local habitation, but move on their carrying expeditions through the various districts of the Presidency, sometimes disappearing across the borders into Mysore, or the Nizam's territories, whence they occasionally make sudden raids for the purpose of dacoity. The most serious dacoities in the Bellary, Kurnool and Kistna districts are committed in this manner by Lumbaudies, who, on such occasions, are usually armed and carry out their purpose with reckless violence. Although their ostensible means of livelihood is the carrying trade in which they are largely employed, they are always ready to commit crime, and require close supervision by the police. The Koravar, or Koorchar, are a tribe distinct from the Lumbaudies, but resemble them in their vagrant habits, their vocation, and their lawlessness. There are many practised Koravar dacoits and house-breakers, but they are less enterprising than the Lumbaudies or Brinjarries. Koravar have settled in certain places, but as a rule they have no fixed habitation. The Yerkalar although a different tribe are not easily distinguishable in their appearance from the Koravar. Their criminal proclivities and mode of life are the same but the range of their excursions is more limited. They have numerous settlements in the Nellore district, where they form permanent camps, starting annually on carrying expeditions and generally returning to the same place. The Paumoolavandloo and Dommaravandloo (snake-charmers and jugglers) are well-known throughout the Presidency, and wherever they go they commit crime on opportunity serving. They are chiefly addicted to burglary. The Dassaries and Alagaries, or Capemarries, are highly troublesome tribes. The Alagaries occasionally form themselves into small settlements, where they combine agricultural and criminal pursuits. They have been known to commit exceedingly daring and well-planned dacoities, but generally they frequent festivals and fairs for the purpose of picking pockets. The Yanaudies are a singular and almost outcast race. They abound in the island of Shreeharicote between the Poolicat Lake and the sea, where they are employed in cutting wood for the Madras market, and here seem to abstain from crime, there being in fact nothing to steal. Further north in the Nellore district, they are found in numerous small settlements outside villages, where they are employed by the inhabitants, though apparently with some reluctance, in minor menial services. They are found also in a wandering state in the Kistna and Godavery districts, and here their criminal propensities attain full development. The Yanaudies of the north haunt wild and jungle-covered talooks and subsist by crime. The villagers dread and detest them. They are expert house-breakers and ready robbers and dacoits, and it is fortunate that their gangs are small. There are probably not more than a few hundreds of Yanaudies in the Kistna and Godavery together. Their unstable wandering existence doubtless fosters their predal instincts. At least one attempt has been made to induce them to settle but without success. They frequently carry their booty into Nellore, and, when either the Kistna police or the Godavery police are engaged in tracing them, they betake themselves into the adjoining district. They are determined characters, and equally prepared to resist arrest, and to retaliate by fresh crime marked with increased ferocity when any of their friends are put into jail. The districts of Tanjore, Trichinopoly, and Madura are infested by Kuller and Maravar; both classes are by profession robbers ("kullan" being Tamul for thief). They chiefly maintain themselves by plundering travellers, about whose movements they are able, being employed as cauvalgars or watchmen in the bandy pettahs of those districts, to obtain all the necessary information. When bent on crime they carry fire-arms, swords, and other weapons, and at the bidding of their leaders will without hesitation perpetrate outrages of the gravest enormity. The Koravar of Salem and North and South Arcot represent another distinct criminal tribe. Basket-making is their avowed calling, but they rob or steal on every convenient occasion.

238. Usual Crime Occurrences.—The usual crime occurrences in this Presidency are house-breaking with theft and ordinary simple thefts. The table

below [2] shows the other crimes, which are of less frequent occurrence, the districts in which they are comparatively most numerous, and the total average number during the past three years in those districts.

239. Mode of collecting Statistics.—For statistics under the head of crime and offences the Government rely entirely on the Police Department. Crimes are first reported to a Police station-house either by the village magistrate, or by beat constable, or by the complainant. Sometimes occurrences are first heard of through general rumour. Occurrences are first entered in the station-house register. The station-house officer then sends an occurrence report to Police district head-quarters. The same occurrences are also entered in the station-house report of the day, which is sent to the Division Inspector, who after checking it, sends it to the head-quarter office. Crime reports are checked daily in the district office and arranged according to divisions and according to classes of offences. Subsequent information received in Inspectors' diaries and Magistrates' proceedings is also filed with the above. Each Division Inspector keeps a crime register and enters in it all crimes communicated to him through the daily station-house reports, subsequent proceedings being entered as they occur. On the first of each month the Inspector prepares an extract from his crime register showing all offences reported during the previous month and forwards it to the head-quarter's office. The crime extracts received from Inspectors are compared in the head-quarter's office with the crime reports already arranged and filed. Objections and differences, if any, are noted on both extracts and reports, and the crimes are then ledgered. Subsequent proceedings and results are entered in the ledger from proceedings of the Magistrates. Crime reports, crime extracts, and Magistrates' proceedings, in which further information or explanation of differences is required, are returned to the several officers concerned, and on receipt of reply adjustments are made in the ledger. The several Magistrates in the district send in to the head-quarter's office on or before

[2] Crimes shown in the Districts where they are most numerous.

Crimes.	Districts in which they are most numerous.	Total average number during 1881-82-83.
1. Murder	Ganjam	20
	Jeypore	17
	Godavery	18
	Bellary	17
	Cuddapah	19
	Madura	15
	Tinnevelly	10
	Malabar	7
2. Culpable homicide.	Ganjam	10
	Vizagapatam ...	10
	Malabar	9
3. Grievous hurt ...	Ganjam	27
	Kistna	24
	Nellore	21
	Bellary	20
	North Arcot	24
	Tanjore	32
	Madura	25
	Salem	25
	Coimbatore	21
	Malabar... ...	24
4. Dacoity ...	Kurnool	14
	Cuddapah	14
	North Arcot	17
	Tanjore	15
	Trichinopoly	10
	Madura	9
	Tinnevelly	19
5. Robbery ...	Vizagapatam	13
	Kistna	14
	Kurnool	12
	Bellary... ...	16
	Cuddapah	21
	North Arcot	22
	Madura	11
	Salem	27
	Coimbatore	10
	Malabar	15

Crimes.	Districts in which they are most numerous.	Total average number during 1881-82-83.
6. Offences— Against the State. Against the army and navy. Against public tranquillity. By public servants. Relating to coin. Relating to religion. Criminal breach of contract.	These offences are of very rare occurrence in any district.	
7. Contempt of lawful authority.	Tanjore	218
	Madura	171
	Coimbatore	147
	Malabar	127
8. False evidence.	Tanjore	44
	Madura	14
	Tinnevelly	14
	Malabar	14
9. Offences relating to weights and measures.	Tanjore	25
	Madura	22
	Coimbatore	13
10. Offences affecting public health.	Madura	68
	Tanjore	121
11. Offences relating to documents.	Madura	22
	Malabar	33
	Tanjore	22
12. Offences relating to marriage.	Vizagapatam	129
13. Defamation, criminal intimidation.	Madras City	97

the fifth of every month a statement "B," which contains all cognizable and non-cognizable cases disposed of by them directly without the intervention of the police during the previous month with details. These are also ledgered. To ensure the correctness of the ledger in the head-quarter office a return of all grave crimes is prepared and published in the District Police Gazette quarterly or half-yearly, and Inspectors have to report whether this return corresponds with their registers. Results in cases of appeal to High Court are reported to the District Superintendent of Police by the District Magistrate and duly entered in the crime ledger. Finally the annual statements compiled in District Police offices are subjected to scrutiny in the statistical department of the chief office at Madras, and every discrepancy or apparent inaccuracy is referred back to the district for explanation. From the central office the returns are made to Government. In the town of Madras the Commissioner of Police, or his deputy, sits at the High Court during the sessions and takes a note of all convictions and sentences passed.

CRIMINAL JUSTICE.

240. High Court, Criminal Side.—Under 24 and 25 Vic., c. 104, and by Letters Patent issued thereunder, the Madras High Court of Judicature exercises original and appellate jurisdiction, being presided over by a Barrister Chief Justice, and four Puisne Judges, one of whom is a Barrister and all of whom hold their appointments direct from the Queen. It exercises ordinary original criminal jurisdiction within the limits of the city of Madras, and tries cases committed to it by the Presidency Magistrates. Its procedure, in the exercise of its original criminal jurisdiction, is now governed by Act X of 1882 (the Code of Criminal Procedure). It holds sittings on such days and at such convenient intervals as the Chief Justice from time to time appoints. These sittings are presided over by a single Judge, and are known as sessions, usually held once a quarter. All prisoners committed to take their trial before the High Court are arraigned at the sessions, and the trial is held before a jury consisting of nine persons. The relations between the Judge and the jury are the same as in English law. Juries are of two kinds, common and special. Ordinary cases are tried before a common jury; but capital cases and such special cases as a Judge of the Court so directs (usually those in which the Crown is directly interested, and for which it prosecutes through the Advocate-General,) are tried before a special jury. Under section 335 of the Code of Criminal Procedure the High Court has power, with the consent of the Local Government, to sit at any place outside the Presidency town, and on such occasions juries must be empanelled under special arrangements provided for by section 316. There is no appeal from a criminal trial before the High Court. By the Letters Patent (clause 24), the High Court may exercise extraordinary original criminal jurisdiction over all persons within the jurisdiction of any Court subject to its superintendence, and may, at its discretion, try any such persons brought before it on charges preferred by the Advocate-General, or by any Magistrate, or by any other officer specially empowered by Government in that behalf. European British subjects who are charged with serious offences committed outside the limits of the city of Madras are sent up for trial to the High Court. The High Court has power to issue directions of the nature of a 'habeas corpus,' under section 491 of the Code of Criminal Procedure. By the Letters Patent the High Court is also invested with Admiralty and Vice-Admiralty jurisdiction. As a Court of Appeal and Revision, the powers of the Court are prescribed by the Criminal Procedure Code. Appeals from the Session Courts and from the Presidency Magistrates, where allowed, lie to the High Court. They are usually heard and determined by one Judge; unless they are from a judgment containing sentence of death, when two Judges invariably sit, such sentences requiring by law the confirmation of two Judges. Appeals posted before one Judge may however be referred by him for hearing and determination by a Bench of two Judges, and appeals posted before a Bench of two Judges may be referred by them to a Full Bench consisting of three or more Judges. The Local Government alone are empowered by section 417 of the Code of Criminal

Procedure to direct an appeal from a judgment of acquittal passed by a Court other than the High Court, and such appeals lie to the High Court only. Under Chapter XXXII of the Code of Criminal Procedure, the High Court receives and disposes of references from, and exercises powers of revision over, all the Criminal Courts of the Presidency, revising their calendars and sentences, calling for their records, and annulling, suspending, or altering their sentences. It is as a court of revision only that the High Court can now enhance sentences. The detailed law on the subject is shown under the heading "Criminal Justice" in Vol. II. App. LIV. The number of appeals received in the High Court in 1883 from the sentences or orders of the subordinate Criminal Courts was 508, and the number of persons concerned 781. These figures include 20 appeals by Government from judgments of acquittal under section 417 of the Code of Criminal Procedure, and 16 cases of disagreement between Judge and jury under section 307. In 1883 the cases of 59 persons sentenced to death were submitted to the High Court for confirmation under section 374 of the Code of Criminal Procedure. The statement at foot shows for the last six years the manner in which persons sentenced to death were dealt with by the High Court.[1] The next statement [2] shows in one view the whole criminal work disposed of by the High Court during the past six years.

241. SESSIONS COURTS.—Each of the districts of the Presidency forms a session division, except the Malabar, Anantapore and Neilgherry districts. In Malabar there are two such divisions. Anantapore is included in the Bellary sessions division, and the Neilgherries in the Coimbatore sessions division. The District Magistrate of the latter district is an additional Session Judge in the Coimbatore division. The Courts of Session in these divisions (20 in number) are presided over by the District Judge who is appointed as the Sessions Judge by the Governor in Council by virtue of the powers vested in him by section 9 of the Code of Criminal Procedure. In the Agency tracts of Ganjam, Godavery, and Vizagapatam, the Agents to the Governor are also Sessions Judges. The Sessions Court cannot take cognizance of any offence as a court of original jurisdiction unless the accused person has been committed to it by a competent Magistrate, except when the offence has been committed before itself or under its own cognizance, and is an offence of a specified class exclusively triable by a Sessions Court. Trials before a Court of Session are held either by a jury of five or with the aid of two or three assessors. The system of trials by jury obtains in every district, the Agency tracts above named alone being excepted. Trials by jury are, however, confined to cases of certain offences against property, viz., theft, robbery, gang robbery, house-breaking, and receiving or concealing stolen property. The Sessions Court has power to pass the maximum punishment prescribed for each offence by the Penal Code, and, except in the case of death, its sentences are final, subject only to appeal, where allowed by law, to the High Court. The Sessions Court is also an Appellate Court, as to it lie all appeals from the decisions of the District Magistrates or other Magistrates of the first class.

[1] CASES OF PERSONS SENTENCED TO DEATH IN THE LAST SIX YEARS.

Result.	1878.	1879.	1880.	1881.	1882.	1883.
Persons in whose cases the sentence of death was confirmed	68	75	72	73	58	35
Persons in whose cases the sentence of death was reversed	10	6	8	11	5	4
Persons in whose cases the sentence of death was commuted to life-transportation.	21	8	26	18	21	15
Persons in whose cases the sentence of death was commuted to imprisonment ...	1	...	4	1	1	2
Persons in whose cases new trial was ordered	2	...	...	1	2	2
Total ...	102	89	110	104	87	58

[2] CRIMINAL WORK DISPOSED OF BY THE HIGH COURT IN THE LAST SIX YEARS.

Nature of cases.	1878.	1879.	1880.	1881.	1882.	1883.
Sessions cases	107	68	27	69	69	74
Criminal appeals (secs. 307, 410, 411, and 417).	673	489	718	511	381	533
Sentence of death (sec. 374)	85	73	83	82	66	51
Revision cases (sec. 438)	240	168	349	314	356	392
Do. (sec. 439)	45	186	257	299	329	575
Judgments, &c., perused	...	...	5,015	5,175	5,496	6,498

242. MAGISTERIAL COURTS.—Below the Courts of Session there are three grades of Criminal Courts, presided over by Magistrates of the first, second, or third class. At the head of each district is the District Magistrate, who is also the Collector of the district. This officer is a Magistrate of the first class, his magisterial jurisdiction extends throughout the district, all the other Magistrates in the district are subject to his control, and he has the power of allotting the criminal work of the district among the different Magistrates subordinate to him and of defining their local jurisdiction. A district is divided into sub-divisions, consisting each of so many talooks. At the head of each sub-division there is either one of the Covenanted Assistants of the Collector and District Magistrate, or an Uncovenanted Deputy Collector who is invested with first-class powers, and styled the Sub-Divisional Magistrate, and has control over the subordinate Magistrates within his sub-division. Each talook is under the magisterial control of the Tahsildar, who, for that purpose, is usually vested with the powers of a second-class Magistrate. He is often assisted by his Sheristadar who has generally third-class powers. In larger talooks or in towns, where there is a Deputy Tahsildar, he is likewise vested with the powers of a Magistrate of the second or third class. In addition to his other powers, a first-class Magistrate may hear appeals from the decisions of Magistrates of the second and third classes when so empowered by the Government. All European Magistrates of the first class are invested with the powers of a Justice of the Peace to enable them to deal with European British subjects. The Government have appointed certain persons in different towns to be Honorary Magistrates; these sit as Benches with the Stipendiary Magistrate as their President for the trial of municipal and other petty offences. The number of Magistrates above described is as follows:—21 District Magistrates, 592 Subordinate Magistrates, and 39 Benches of Honorary Magistrates. There are besides 17 Special Magistrates. The statement at foot shows the variations in the number of appeals disposed of by the criminal courts in the interior from 1872 to 1883 and in the number of persons therein concerned.[3] The next statement compares the results, as regards persons, of the appeals disposed of in the same period.[4]

[3] NUMBER OF APPEALS DISPOSED OF BY CRIMINAL COURTS DURING THE LAST TWELVE YEARS.

—	Cases.	Persons.	—	Cases.	Persons.
1872	3,812	9,570	1881	3,015	6,957
1873	3,843	9,371	1882	3,378	8,542
1874	3,678	8,541			
1875	3,223	7,619			
1876	3,435	8,085	Total ...	36,090	83,379
1877	3,109	6,826			
1878	2,824	5,795	Average ...	3,280	7,579
1879	2,778	5,230			
1880	2,995	6,843	Compare 1883 ...	4,299	9,794

[4] RESULTS AS REGARDS PERSONS OF THE APPEALS DISPOSED OF DURING THE LAST TWELVE YEARS.

Year.	Persons.				
	Appeals were rejected.	Conviction confirmed.	Sentence altered or annulled.	Otherwise disposed of.	Percentage of cols. 2 & 3 to the total number dealt with.
1	2	3	4	5	6
1872	1,835	4,540	2,852	283	67·03
1873	1,857	4,096	3,144	274	63·62
1874	1,655	3,566	3,012	308	61·12
1875	1,339	3,530	2,578	172	63·90
1876	1,216	3,684	2,907	278	60·60
1877	1,245	3,001	2,391	189	62·20
1878	845	2,496	2,228	229	57·62
1879	776	2,588	2,603	263	53·99
1880	805	3,036	2,702	300	56·13
1881	693	3,152	3,046	66	55·26
1882	478	4,311	3,668	85	56·06
Total ...	12,744	38,000	31,131	2,447	60·17
Average ...	1,158	3,454	2,830	222	60·17
Compare 1883 ...	749	4,686	4,300	59	55·49

243. PRESIDENCY MAGISTRATES' COURTS.—The four Magistrates in the city of Madras are styled Presidency Magistrates. They are vested with first-class powers, and are 'ex-officio' Justices of the Peace within and for the Presidency town. They are subordinate to the High Court only. One of them is styled the Chief Magistrate with power to regulate the conduct and distribution of business, to appoint the time of sittings, and otherwise to control the business of the Magistrates. The Commissioner of Police, who, with two deputies, administers the Police of the town of Madras subject to the authority of the Inspector-General of Police, is invested with the powers of a Magistrate and Justice of the Peace under the provisions of Madras Act VIII of 1867. He does not, however, ordinarily exercise magisterial powers. He may do so on emergency, but generally his powers are limited to preserving the peace, preventing crimes, detecting, apprehending and detaining prisoners with a view to their being brought before a Magistrate.

244. CANTONMENT MAGISTRATES' COURTS.—There are two of these, one each for the cantonments of St. Thomas' Mount and Cannanore. They are presided over by officers of the Army, who are invested with the powers (first class) of a Magistrate of a division of a district within the meaning and for the purposes of the Code of Criminal Procedure. They are appointed by Government under Madras Act I of 1866. The detailed law relating to Cantonment Magistrates is shown under the heading "Cantonment Magistrate" in Vol. II, App. LIV.

245. VILLAGE MAGISTRATES' COURTS.—The lowest class of officers vested with criminal powers are the heads of villages, sometimes called Village Moonsifs, who, under Regulation XI of 1816, are empowered to take cognizance of petty offences of assault and abusive language, and to punish the offenders by imprisonment in the village choultry for twelve hours; or if the offenders are of the lower castes, by putting them in the stocks for not more than six hours.

MISCELLANEOUS MAGISTERIAL.

246. INTRODUCTION.—Under this head are shown certain miscellaneous operations of the magistracy regarding which they account direct to the Government.

247. ARMS ACT.—The present Arms Act, India Act No. XI of 1878, was brought into force on the 1st October 1878. The object of the Act is to bring the possession and use of arms under control by a system of licenses. The fees for licenses are however fixed at a low figure, as it is the wish of Government that, while there shall be complete registry, no respectable person shall be denied a license for a reasonable supply of arms according to the needs of his condition and circumstances. Section 5 of the Act prohibits the unlicensed manufacture, conversion, or sale of arms, ammunition, and military stores, and section 6 prohibits their unlicensed importation or exportation. Section 11 empowers the Government, with the previous sanction of the Government of India, to establish searching stations at any place along the boundary line between British India and foreign territory. Section 13 prohibits going armed without a license, and section 14 prohibits the unlicensed possession of fire-arms. The notification and rules made by the Governor-General in Council under the Act were published in January 1879, and a revised edition of them in March following. The notification gives a list of persons exempted from the prohibitions relating to the possession of arms. Of the rules under the Act, 1 to 10 relate to the transport, import, or export of arms, ammunition and military stores, and 11 to their manufacture and sale. Rules 12 to 16 relate to the possession of arms and going armed, and 17 to 26 are general rules. Under rule 6 the importation or exportation of arms, ammunition, and military stores by private persons is only permissible at the ports of Madras and Calicut so far as regards this Presidency. This rule, however, does not apply to cannon and rifles which are not intended for sporting purposes, for the importation of which a license can only be granted by the Government of India. The Travancore Government has also prohibited the importation of fire-arms into any port of Travancore except Alleppey; and the Cochin Government has fixed Naracal as sole port in Native Cochin for the importation of arms. No license whatever is required for the possession of arms

not being fire-arms, but for the possession of fire-arms the rules prescribe an annual license which is granted free. To go armed for the purposes of sport, protection, or display necessitates an annual license, for which a fee of four annas has been fixed. Free licenses, valid for a term of five years, are granted to all ryots and others who require arms and ammunition for the destruction of wild beasts, which do injury to human beings, cattle, or crops. These licenses are granted in the Presidency Town by the Commissioner of Police and in the districts by the District Magistrates. At the end of each calendar year the Commissioner of Police and all District Magistrates submit to Government a report on the working of the Arms Act with statements showing the number and description of licenses granted as well as the inspections made by the magistracy and the police. The following officers are authorized to grant licenses for the importation of arms and ammunition to the chiefs and other persons of rank in the several feudatory states within the political jurisdiction of the Government of this Presidency :—the British Resident for the states of Travancore and Cochin ; the District Magistrate of Trichinopoly, in his ex-officio capacity of Political Agent, for Poodoocottah ; the District Magistrate of Kurnool, in his ex-officio capacity of Political Agent, for Bunganapully ; and the District Magistrate of Bellary, in his ex-officio capacity of Political Agent, for Sundoor. In addition to this the Commissioner of Police is authorized to grant licenses for export into native states under Rule VII ; and the Chief Secretary grants licenses within the political jurisdiction of the Government of Madras. A brief sketch is given in the foot-note regarding the law on the subject previously in force and the changes made in it by the present Act.[1] In the next statement is given the number of licenses issued under the Act during the past five years.[2]

248. FACTORIES ACT.—The Indian Factories Act, India No. XV of 1881, for regulating labor in factories came into force in this Presidency on the 1st July

[1] SKETCH HISTORY OF THE LAW PREVIOUSLY IN FORCE REGARDING ARMS AND AMMUNITION.—India Act XXVIII of 1857 was the first Indian enactment regulating the importation, &c., of arms and ammunition. It continued in force till 1st October 1860, when India Act XXXI of 1860, an Act relating to the manufacture, importation, and sale of arms and ammunition, and for regulating the right to keep and use the same and to give power of disarming in certain cases, was brought into force. So much of this enactment as had not already been repealed was repealed by the present Arms Act, India No. XI of 1878, which is an Act to consolidate and amend the law relating to arms, ammunition, and military stores. The main changes made in the law by this Act were (1) the imposition (schedule II) of special rates of duty on fire-arms and appurtenances thereof imported into British India by sea ; and (2) the general prohibition except to license-holders or persons specially exempted, of the possession of fire-arms and ammunition, even in districts which had not been disarmed. Under the Act previously in force, this prohibition extended only to disarmed districts, that is to say, districts which, under the provisions of section 32, Act XXXI of 1860, had been formally disarmed in order to secure the public safety. In the statement of objects and reasons annexed to the Bill of 1878, it is explained that the chief evil against which the licensing provisions were intended to guard was the transmission of arms "to disarmed districts and to the predatory classes in Native States, and to the hostile tribes on our frontiers."

[2] LICENSES ISSUED UNDER THE ARMS ACT DURING FIVE YEARS.

Year.	Export of arms, &c., into Native States under clause VI, rule vii of the rules.	License to transport arms, ammunition or military stores in British India. (License Form II.)	License to import arms, ammunition or military stores into the port of—. (License Form III.)	License to import arms, ammunition or military stores by river or land (India Resolution, 8th June 1882, No. 865, recorded in G.O., 12th June 1882, No. 512, Judicial).	License to export arms, ammunition or military stores by sea from the port of—. (License Form IV.)	License to export arms, ammunition or military stores beyond the limits of British India either by land or river. (License Form V.)	License to manufacture, convert, or sell, or keep arms, ammunition and military stores. (License Form VI.)	License to keep and sell arms, ammunition and military stores. (License Form VII.)	License to possess arms and ammunition and to go armed for purposes of sport, protection or display. (License Form VIII.)	License to go armed on a journey. (License Form IX.)	License to possess fire-arms, ammunition or military stores in a district which has not been disarmed. (License Form X.)	License to possess arms and ammunition for the purpose of destroying wild animals. (License Form XI.)	License to possess and transport gunpowder and fuses for 'bonâ fide' blasting purposes. (India Resolution, No. 1556, dated 30th September 1881, recorded in G.O., 13th October 1881, No. 2114.)	Total.	Number of licenses in Form XI produced before the Magistrate in accordance with rule 16 of the rules under the Arms Act.
1879-80	...	130	98	...	1	62	97	182	1,588	87	6	321	...	2,572	...
1880-81	...	179	96	...	...	17	144	209	20,006	168	1,223	3,639	...	25,681	...
1881-82	...	228	105	...	...	...	173	207	12,230	180	1,512	1,663	...	16,298	..
1882-83	...	174	88	...	1	...	250	267	12,733	96	360	1,170	147	14,286	314
1883-84	5	181	81	...	3	...	298	252	17,299	181	1,320	2,065	216	21,901	2,134

1881. A factory under this Act means any premises (other than indigo factories or premises situated on, and used solely for the purposes of, a tea or coffee plantation) wherein is carried on, for not less than four months in the whole in any one year, any process for, or incidental to, making, altering, repairing, ornamenting, finishing, or otherwise adapting for use, transport or sale, any article or part of an article; and (*a*) wherein steam, water, or other mechanical power is used in aid of any such process; and (*b*) wherein not less than one hundred persons are on any day simultaneously employed in any manual labor in, or incidental to, any such process; and every part of a factory is considered to be a factory, except any part used exclusively as a dwelling. Under section 3 of the Act the following officers were in 1882 appointed by Government to be "Inspectors of Factories":—the Joint Magistrate, Head Assistant Magistrate, and Assistant Magistrate of each district for factories situated within those districts; the Deputy Commissioner of Police for factories situated within the Presidency town; the Deputy Consulting Engineer for Railways for railway workshops. Under section 5 the Government are authorized to appoint certifying Surgeons to examine any person employed or desirous of being employed in a factory and grant him a certificate stating whether the age of such person, as nearly as it can be ascertained from the examination, is above or below seven years, or twelve years, as the case may be. Under section 6 no child under seven years can be employed in any factory. Section 12 relates to the secure fencing of machinery. Rules were made by Government under section 18 of the Act in 1882. Under rule 7 every factory must be inspected at least three times in each calendar year. Under rule 18 any occupier of a factory on whom an Inspector serves an order under section 12 relating to the fencing of machinery may, within seven days after the receipt of such order, appeal, in the mofussil, to the Magistrate of the district; in Madras, to the Commissioner of Police; and in the case of railway workshops, to the Consulting Engineer for Railways. There is no further appeal from an order passed by these appellate authorities, but Government can review any order of an Inspector or of an appellate authority, and may issue any orders which seem proper. An annual report on the working of the Factories Act is submitted by the authorities mentioned above. The restrictions imposed under the Act in regard to the employment of child labor has led to the dismissal in many cases of the children now employed in factories. The statement at foot [3] gives a list of factories in this Presidency according to the definition of "factory" given above.

249. Fees to Public Prosecutors and Pleaders.—Prosecutors were formerly appointed under clause 5, section 37 of Madras Regulation XIV of 1816, which was repealed by Madras Act II of 1867, and since that time no appointments of Public Prosecutors have been made. The rule at present is that the District

[3] List of Factories.

District.	Station.	Name of factory.	Number of hands ordinarily employed.	District.	Station.	Name of factory.	Number of hands ordinarily employed.
Arcot, South.	Nellicooppam.	Nellicooppam	362	Madras ...	Madras ...	Buckingham Mill	597
	Tiroovennanallore.	Tiroovennanallore ...	204			Madras United Mill ...	493
Bellary ...	Bellary ...	Bellary Spinning and Weaving Mill Factory.	253			Southern India Mill ...	262
Ganjam ...	Aska ...	Messrs. Minchin Brothers' Sugar Factory.	629			Gun Carriage Factory ...	414
Godavery...	Dowlaishweram.	Government Workshop ...	299			Public Works Workshop ...	230
Kistna ...	Bezwada ...	Public Works Workshop ...	223			Gunpowder Factory ...	111
						Arsenal	681
						Massey's Iron Works ...	137
						Cement Works	149
						Carnatic Mill	488
						Harbour Works	143
					Perambore.	Locomotive and Carriage Shops.	2,438
				Tanjore ...	Negapatam.	Do. do. ...	1,527
				Tinnevelly	Tuticorin.	Cotton Press Company (Limited).	131
					Viroothoopputty.	Cotton Press Factory (Messrs. A. and F. Harvey's).	116
				Vizagapatam.	Chittivalasa.	Messrs. Arbuthnot and Co.'s Gunny Factory.	757

Magistrates may pay to the person employed by them as Public Prosecutor fees to the extent of Rupees 25, but when from the peculiar circumstances or nature of any case, and the trial necessarily occupies more than one day, a higher fee than 25 rupees is considered proper, they have authority to award such additional amount not exceeding 25 rupees as the importance of the case seems to call for; the grounds for each such special grant being entered in a statement submitted quarterly to Government. The special sanction of Government is required for the payment of everything above Rupees 50. For the transaction of civil business, a pleader is retained in all districts except Ganjam, Vizagapatam, Cuddapah, and North Arcot, who is remunerated by a fee of Rupees 21 per mensem, besides special fees in particular civil cases.

250. INTERPRETATION FEES.—District Magistrates are authorized to incur expenditure to the extent of 10 rupees in each case for interpreters engaged to interpret evidence given in a language not understood by the accused. They are empowered to pass similar charges incurred by Divisional Officers and Magistrates subordinate to them. A half-yearly return of such cases is submitted to Government.

251. PAUPER TRAVELLERS.—Pauper travellers found in a helpless state from fatigue and exposure are relieved at civil dispensaries, the charges being entered in the contingent bills of the District Magistrate. Lost or orphan children are taken to the nearest Magistrate, who, after ascertaining that their parents are dead or cannot be traced, may place them under the care of respectable persons paying for their support or may leave them with any person or orphanage willing to take charge of them. District Magistrates may incur an expenditure not exceeding 10 rupees per mensem for these purposes. Divisional Officers may similarly incur charges up to Rupees 5. A special report is forwarded to Government when the total monthly charge exceeds 25 rupees for the whole district.

252. REWARDS.—The Inspector-General of Police may sanction payments within 20 rupees to policemen, but not to others, for meritorious services rendered. Magistrates of districts and the Inspector-General of Jails disburse rewards to informers and others, and to the captors of escaped prisoners; the limit in the case of Magistrates is fixed at Rupees 100 for any one offender apprehended and convicted, and in that of the Inspector-General of Jails at 50 rupees. District Magistrates are authorized to pay forthwith any sum not exceeding 20 rupees as rewards to persons for saving life. The letter reporting this disbursement may contain a recommendation for an additional reward if necessary. No rewards can be granted without application to Government, when loss of life or bodily injury has resulted from resistance made by other than the paid police against the attacks of gang robbers and on similar occasions. District Magistrates and the Inspectors-General of Jails and Police submit to Government annual statements of the rewards disbursed under their orders. Up to 1883 these annual statements were made up to the end of the official year, but they are now for the calendar year. The statement at foot [4] shows the amount of the rewards disbursed during the past seven years. These rewards are usually in cash, but can take the form of personal ornaments if that is preferred by the persons concerned.

253. SULPHUR LICENSES.—Over two hundred and thirty tons of sulphur are annually expended or sold in this Presidency. The sulphur is chiefly used in making gunpowder and fire-works and in blasting operations. It is used also in

[4] AMOUNT OF REWARDS PAID DURING THE PAST SEVEN YEARS.

—	1877-78.			1878-79.			1879-80.			1880-81.			1881-82.	1882-83.	1883-84.
	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	RS.	RS.
Magistrates	4,249	13	6	3,341	15	4	5,586	1	9	18,741	13	0	3,526	1,866	1,372
Inspector-General of Police ...	3,023	4	0	4,273	4	0	2,444	8	0	2,495	8	0	1,966	1,749	4,789
Inspector-General of Jails ...	340	0	0	430	0	0	325	0	0	570	0	0	85	60	85
Total ...	7,613	1	6	8,045	3	4	8,355	9	9	21,807	5	0	5,577	3,675	6,246

Malabar for bleaching ginger. A little sulphur is employed in medicine, and it has, in some instances, been used as a disinfectant. The manufacture of sulphur and its traffic are regulated by the Indian Arms Act, India No. XI of 1878, under the provisions of which no one can manufacture or deal in sulphur in quantities above 10 seers except under a license. Sulphur is under the Act classed as Military stores, and the Commissioner of Police and District Magistrates are authorized to grant licenses for its manufacture and sale. Licenses for the importation, possession, or transport of sulphur proved to the satisfaction of Government to be intended only for 'bonâ fide' medicinal, manufacturing, or agricultural purposes are granted without payment of any fee. The premises, books, and stock of licensed sulphur dealers are examined by the Subordinate Magistrates and by Police Inspectors once in every two months and occasionally by the Divisional Magistrates and in the Presidency town by the Commissioner and Deputy Commissioner of Police; annual returns are submitted by District Magistrates and the Commissioner of Police of the number of dealers and the business carried on by them, drawing special attention to new shops opened. The statement at foot shows the number of licenses issued or in force during the past seven years, with the quantities for which licenses were obtained, and the amount of sulphur purchased or imported and sold in each year.[5]

STAMPS.

254. INTRODUCTION.—By stamps [1] are meant not only labels to be affixed to or impressed upon documents, but also blank sheets of paper with stamps printed upon them. The stamp duties take two forms. In one case they constitute a tax on litigation and proceedings under criminal law, applied towards the support of the

[5] SULPHUR LICENSES ISSUED DURING THE PAST SEVEN YEARS.

Year.	Number of licenses issued or in force.	Quantities for which licenses were obtained.	Purchased or imported during the year.	Sold during the year.
		TONS.	TONS.	TONS.
1877	131	440	208	170
1878	140	398	192	174
1879	143	474	171	181
1880	146	469	244	258
1881	158	462	328	252
1882	173	686	279	282
1883	187	638	221	238

[1] SKETCH HISTORY OF STAMPS IN THE PRESIDENCY.—Stamps were first introduced by the British Government. The native rulers did not use this form of revenue. The early stamp laws of this Presidency were contained in Madras Regulations IV, V, VIII, and XVII of 1808; in section 35 of Madras Regulation VII of 1809; and in Madras Regulation II of 1813; and under these duty was levied by means of stamped papers and stamped cadjan-leaves on the institution of suits, on exhibits, and on summonses issued to procure the attendance of witnesses. By Madras Regulation XIII of 1816 the law was carried further, and it was enacted that all documents of certain descriptions, such as bonds, promissory notes, bills of exchange, &c., executed in the provinces should be stamped previous to execution. At the same time a fresh table of fees on the institution of suits and on appeals was substituted for the existing table; and various other steps in the progress of a suit were newly taxed, as the giving of an answer, rejoinder, razeenamah, petition, &c. Under this Regulation a General Stamp Office was established in Madras town with a Superintendent subordinate to the Board of Revenue. All stamped papers required under the Act were to be manufactured by him and counter-stamped at the Government General Treasury. In 1860, the Government of India Act No. XXXVI of 1860 appeared, in which the subject-matter of the stamp regulations for Bengal, Bombay and Madras Presidencies, together with several new provisions taken from the English Statutes, was reduced into one enactment applicable to the whole of India. This Act was the first which included the town of Madras, hitherto exempt; by Bengal Regulation XII of 1826 stamp duties were leviable within the town of Calcutta, but down to 1860 no similar law existed for the town of Madras or Bombay. India Act X of 1862 was a mere reproduction with a few unimportant additions of India Act XXXVI of 1860. In 1867 India Act XXVI repealed Schedule B of the last Act, and the stamp duties on judicial proceedings were increased. The portion of the existing stamp law which related to the stamping of documents other than those for judicial proceedings was down to this date highly obscure, and in 1869 India Act XVIII took charge of this part of the subject and aimed at completely reconstructing that portion of the law. In 1870 India Act VII revised the judicial part of the stamp law, diminishing the rates of 1867 in nearly all cases, and making various changes in detail. Under this Act the fees in the Original Side of the High Court and in the Small Cause Court at the Presidency town were for the first time declared to be leviable by adhesive stamps in lieu of cash. This Act is still in force; India Act XX of 1870 merely repairing some clerical errors which occurred in it, and Act XIII of 1875 inserting certain provisions relative to probate duties. India Act I of 1879 has modified India Act XVIII of 1869 for general stamps. It was in part contemplated in 1879 to consolidate the two branches of stamp law but the public which uses each is so different that the idea was not carried out.

law courts. The institution fee in various legal proceedings is levied in the shape of a stamp on the application, petitions and papers subsequently filed in court are in many instances similarly taxed, and stamps are also applied for levying fees on copying. This class of stamps is free from evasion, and is realized easily. The sanction or penalty consists in the refusal of the courts to proceed. In the other case stamps constitute a tax on bonds, deeds of conveyance, cheques, and other instruments executed by individuals; a main principle observed being that each distinct transaction between separate parties which is recorded by a written document must have a separate stamp attached to it. Though rarely made the subject of complaint, commercial stamps are probably to a certain extent evaded in spite of vigilance. The penalties here are inadmissibility of the documents as legal evidence, and in many cases direct penal consequences for omitting to employ the stamp at the time of or previously to executing the document. The law is however lenient as to permitting subsequent rectification of omissions under this last head, and the responsible officers of Government are directed to use their discretion as to initiating prosecutions. The stamp taxation both judicial and commercial is in this country lighter, and the objects of the commercial stamp law are less numerous than is the case in England.

255. Law and Departmental Arrangements.—The Acts at present in operation are India No. I of 1879, called the Indian Stamp Act, for the stamping of documents other than those indicating steps in judicial and quasi-judicial proceedings; and India No. VII of 1870, called the Court Fees' Act, for stamping in the last-named cases.

256. If a person desires to execute a document specified as dutiable in India Act I of 1879, which will usually be of a mercantile nature, he must in most cases purchase blank paper, on which stamps have been printed or impressed, and prepare the document thereon. The schedules of the Act show what is dutiable. In some cases he must send his document prepared but unexecuted to the Stamp office to have stamped labels impressed there by the Superintendent of Stamps; this provision has been made by the Governor-General's rules under the Act. In certain cases of a simpler nature specified in the Act, an adhesive stamp may be purchased and applied by the person himself to the document, whether before or after execution. A person executing unstamped, and other persons dealing in certain specified ways with, a document which is liable to be stamped, can with some limitations be prosecuted by the Collector for evasion of the stamp laws. Such an unstamped document moreover is inadmissible as evidence in Civil Courts, and cannot be registered by the Registration Department and cannot be authenticated by a public officer. Under section 34 of the Act, Civil Courts can receive certain unstamped or insufficiently stamped documents, on payment of the deficiency with a penalty of ten times the duty, and will then endorse on the document that duty has been paid, and constitute it thenceforward valid. Every person having by law or consent of parties authority to receive evidence, and every person in charge of a public office except an officer of police, can impound documents for evasion of stamp duty, and bring the matter to the notice of the Collector; who can either certify them as already duly stamped, or can have them stamped with penalty, and pass them current as the Civil Courts above. Collectors may in certain cases remit penalties. The Board of Revenue may remit penalties in all cases. Stamping after execution is permitted in certain cases to render the document valid, but the process will not absolve from penalties the person who executed the document. The Board of Revenue are empowered to give an authoritative ruling on questions of stamp-duty referred to them. They can also if they think fit apply for the decision of the High Court on points regarding which they themselves are in doubt, either when these are referred to them or otherwise. Under Act I of 1879, the Indian Stamp Act, a number of rules have the force of law which are shown in the foot-note.[2]

[2] Rules with force of Law under General Stamps.—Board's Standing Order No. 49—Sale of Stamps. Rules regarding the sale of stamps published with G.O., 24th July 1883, No. 2275. All registering officers under Act III of 1871 to be Collectors for the purposes of section 15 of the Stamp Act—Notification published in the Fort Saint George Gazette, dated 12th August 1879. All Revenue officers in charge of divisions invested with powers of Collector under sections 35 to 39—Notification in the Fort Saint George Gazette, dated 15th July 1879. Powers of Collector restricted to

257. Fees under the Court Fees' Act, India No. VII of 1870, are paid in stamps. If of a value less than ten rupees, the public convenience is consulted by making them adhesive; if of the value of ten rupees or more, they consist of impressed sheets. The law under this Act, as far as it touches the public, relates only to the amounts payable on the documents which represent the different stages of the Court's proceedings. Under India Act VII of 1870, the Court Fees' Act, sections 20, 22, 23, 27, 34, and 35, there are numerous rules having the force of law as shown in the next foot-note.[3] The Courts see that they are paid.

258. The stamps upon the copies granted by Civil Courts and Session Judges are not levied under the Stamp Act or the Court Fees' Act, but under administrative rules which the High Court have framed with the approval of Government. Formerly the copying charges were paid in cash, and this is still the practice in Revenue Courts and Offices and in Magisterial Courts; but Civil Courts, Session Judges, and Cantonment Magistrates no longer accept cash payments for copying charges, except when the copies are printed. When the papers are copied by hand the copy is written on sheets with special impressed stamps, and the copyist establishment are paid fixed salaries. These impressed copy stamps are intended only to defray the cost of copying and are entirely distinct from the Court Fee stamp, which must be affixed to certain copies under the Act of that name.

Sub and Head Assistant Collectors—Notification in the Fort Saint George Gazette of the 2nd September 1879. Sub-Collectors and Head Assistant Collectors given powers of Collector under sections 15, 17, 30, 31, 45, and 51 to 54—Notification in the Fort Saint George Gazette, dated 30th November 1881. Notification of the Government of India, dated 3rd March 1882. The following exemptions have also the force of law:—Bills of exchange and cheques drawn in the Hyderabad Assigned Districts on which full duty has been paid there—Notification in the Fort Saint George Gazette, dated 1st July 1879. Bills of exchange and cheques drawn in the cantonment of Secunderabad on which full duty has been paid there—Fort Saint George Gazette, dated 8th July 1879. Bills of exchange and cheques drawn in Mysore, on which full duty has been paid there—Notification in the Fort Saint George Gazette, dated 9th September 1879. Receipts given by Mounted Police constables for pay—Notification, Fort Saint George Gazette, dated 23rd March 1880. Receipts given by addressees for deposits for replies to telegraphic messages—Notification, Fort Saint George Gazette, dated 6th April 1880. Duty chargeable on entry as Vakil of High Court reduced to Rupees 275 in certain cases—Notification, Fort Saint George Gazette, dated 6th April 1880. Agreements with Commissariat officers—Notification, Fort Saint George Gazette, dated 25th May 1880. Receipts by payees on postal money orders—Notification, Fort Saint George Gazette, dated 8th June 1880. Agreements with railway companies for conveyance of goods and receipts given by them—Notification, Fort Saint George Gazette, dated 31st August 1880. Agreements with railway companies, limiting their responsibility as common carriers—Notification, Fort Saint George Gazette, dated 23rd November 1880. Receipts for interest on Government promissory notes—Notification, Fort Saint George Gazette, dated 23rd March 1881. Puttahs to holders of land on ryotwarry settlement—Notification, Fort Saint George Gazette, dated 1st June 1881. Leases or counterparts thereof at time of settlement in certain cases—Notification, Fort Saint George Gazette, dated 27th September 1881. The duty on the following has been reduced:—Agreements for work on the coffee plantations of Mysore when advance does not exceed Rupees 20, reduced to one anna—Notification, Fort Saint George Gazette, dated 18th November 1879. Gift of shares in a company—Notification, Fort Saint George Gazette, dated 6th July 1880.

[3] RULES WITH FORCE OF LAW UNDER COURT FEES.—Judicial Notification, Fort Saint George Gazette, dated 28th February 1872, under section 27, prescribing rules for fees in the Madras Small Cause Court. Revenue Notification, Fort Saint George Gazette, dated 30th April 1872, prescribing rules for supply, use, and renewal of Court Fee stamps. Revenue Notification, Fort Saint George Gazette, dated 20th May 1873, adding a proviso to Rule 3 of the Rules of 24th May 1872. Judicial Notification, Fort Saint George Gazette, dated 5th August 1873, rules for service of processes. Revenue Notification, Fort Saint George Gazette, dated 9th December 1873, ordering that stations of Tahsildars and Deputy Tahsildars should be sub-depôts. Judicial Notification, Fort Saint George Gazette, dated 30th June 1874, issuing new schedule of rates for process service. Revenue Notification, Fort Saint George Gazette, dated 23rd April 1875, ordering fee to be denoted by a single stamp. Judicial Notification, Fort Saint George Gazette, dated 17th July 1877, issuing revised schedule of rates for process fees. Notification, Fort Saint George Gazette, dated 30th December 1879, amending revised schedule of rates for process fees. Notification, Fort Saint George Gazette, dated 25th April 1882, issuing an addendum to the schedule of fees chargeable under the rules framed in accordance with section 20. Notification by Government of India (Fort Saint George Gazette, dated 8th May 1883), prescribing adhesive stamps for Court fees less than Rupees 10 and impressed stamps for Rupees 10 and upwards, and thereupon the notification issued by the Government of Fort Saint George, dated 19th May 1883, modifying the notification published in the Fort Saint George Gazette, dated 30th April 1872. Notifications by Government of India, dated 19th February 1884, and 18th June 1884, permitting refund of the value of Court Fee stamps. Also Government of India Resolution, 10th July 1884, No. 2090; 11th October 1884, No. 3904, and 26th December 1884, No. 2345. The following exemptions have also the force of law:—Fees on plaints, &c., under Madras Regulation VI of 1831—Notification, Fort Saint George Gazette, 13th February 1872. Fees on copies of judgments or decisions passed under Regulation VI of 1831—Notification, Fort Saint George Gazette, 13th February 1872. Fees on petitions of appeal under section 55 of Madras Act IV of 1871—Notification, Fort Saint George Gazette, 28th January 1873. Fees on copies of final sentences or orders given to prisoners desirous of appealing therefrom—Notification, Fort Saint George Gazette, dated 4th October 1870. Fees on bonds and other instruments executed by salaried officers of Government to secure the due performance of their duties—Notification, Fort Saint George Gazette, dated 17th January 1871. Fees chargeable on probates and letters of administration in certain cases—Notification, Fort Saint George Gazette, dated 1st August 1871. Fees on final sentences or orders passed by Criminal Courts when applied for by persons in jail—Notification, Fort Saint George Gazette, dated 16th April 1872. Fees on unauthenticated copies of settlement records furnished to landholders and cultivators—Notification, Fort Saint George Gazette, dated 20th August 1872. Fees on applications relating exclusively to the purchase of Government salt—Notification, Fort Saint George Gazette, dated 3rd March 1874. Fees payable on probates and letters of administration in certain cases—Notification, Fort Saint George Gazette, dated 6th May 1874. Fees leviable on certificates of administration in certain cases—Notification, Fort Saint George Gazette, dated 16th February 1875. Fees on copies of certain documents furnished in criminal cases—Notification, Fort Saint George Gazette, dated 31st July 1877. Fees on copies of orders furnished by Collectors under section 14 of the Madras License Tax Act III of 1878—Notification, Fort Saint George Gazette, dated 5th August 1879. Fees on security bonds for the keeping of the peace—Notification, Fort Saint George Gazette, dated 6th April 1880. Fees on copies furnished by Civil and Criminal Courts for the private use of parties—Notification, Fort Saint George Gazette, dated 12th July 1881. The following fees have been reduced:—Fees payable in suits by Government ryots for the recovery of lands sold for arrears of revenue—Notification, Fort Saint George Gazette, dated 11th August 1874. Fee on petition to Collector under section 13 of the License Tax Act reduced to one anna—Notification, Fort Saint George Gazette, dated 7th May 1878.

259. Stamp-impressed papers used to be locally manufactured. Water-marked paper was received from England on which the value stamp was impressed at the General Treasury, or on the abolition of the latter in 1861 at the Mint, or lastly on the closing of the Mint at the Paper Stamping Department attached to the Accountant-General's office. The counter-stamp of the Stamp office was then affixed. The papers so prepared were issued to Collectors, but before they were offered for sale by vendors the Collector's seal had to be affixed. The manufacture of stamped papers locally has been discontinued under the orders of the Government of India, except as a temporary measure the manufacture of copy stamped paper. The adhesive stamps used under the Indian Stamp Act are the ordinary one-anna receipt stamp, the foreign bill stamp, and the share transfer stamp. These and the adhesive stamps under the Court Fees Act are all of English make. The "impressed label" process is carried out by the Superintendent by means of labels of English make. The greater portion of the stock of stamps of all descriptions is in charge of the Superintendent of Stamps, who controls the supply to the provinces.

260. Stamps of value less than Rupees 50 are usually sold through licensed vendors, who purchase them from the different treasuries at a discount and thus obtain a percentage on their sales. Under sections 51 to 54 of the General Stamp Act, Collectors have the power to refund the value of spoiled or useless stamps under certain conditions. There is no similar provision in the Court Fees' Act, but refunds are permitted by certain notifications of the Government.

261. Frauds are somewhat liable to occur in the use of adhesive stamps, which are easily removed from the documents to which they are applied. The mode of fraud is usually to remove the stamp, and, if it is necessary to cover appearances, to substitute one of inferior value which will resemble it. Section 30 of the Court Fees Act requires that the stamp shall be effaced by punching before the Court can take cognizance of the document. In order to prevent fraud on the part of the ministerial servants who might connive at old punched stamps being introduced, arrangements are made for a second punching in diamond form before the documents are put into the record room; stamps so punched can hardly be reintroduced.

262. Postage stamps and telegraph stamps do not belong to the Stamp department, but the Superintendent of Stamps is placed in charge of them for custody and distribution. Postage stamps are received direct from England by indents on the Secretary of State for India, and telegraph stamps from the Stamp Office in Calcutta. Local depôts are supplied by the Superintendent of Stamps on the indents of the officers in charge. Every treasury in the Presidency, including those attached to Mysore, Coorg, Hyderabad, and Travancore, is a local depôt for the sale of postage and telegraph stamps of the value of not less than Rupees 5 of labels at one time. Under the Post Office Act and the rules framed under it (vide the Government of India Gazette, dated 15th January 1881), the District officer may license any person to be a vendor of postage stamps provided he is not employed in a Government treasury and is a 'bonâ fide' vendor of such stamps. To such licensed vendors discount at the rate of half an anna per rupee is allowed as well as to all postmasters and deputy postmasters, and to all stamp vendors licensed under the General Stamp Act, who are required by the Post Office Act to vend postage stamps. To purchasers other than the above no discount is allowed. Discount is not allowed on sales of telegraph stamps. Embossed postage envelopes of the value of half an anna, one anna, and four annas six pies are sold in packets containing sixteen envelopes, for the value of the stamps borne on them, portions of a packet not being saleable, under the same conditions as stamps with the privilege of discount. Service stamps are sold to Government officials without restriction as to minimum amount. No discount is allowed on these sales. The bulk of the postage and telegraph stamps at local depôts are under the joint lock and key of the Collector or his Treasury Deputy Collector and the Treasurer.

263. Statistics.—During the year ending 31st March 1884, the gross receipts from Court Fees were Rupees 34,71,702 and from General Stamps Rupees

19,99,211, making a total of Rupees 54,70,913. The charges were Rupees 2,70,011, leaving a net receipt of Rupees 52,00,902. The net receipts for a series of ten years are given in the foot-note.[4] The incidence of the stamp revenue on the population varies from Anna 1·31 in Vizagapatam district to Annas 4·99 in Malabar, Annas 8·28 on the Neilgherries, and Rupee 1 Annas 9·76 in the town of Madras.

CIVIL JUSTICE.

264. INTRODUCTION.—The accompanying map [1] and App. XCV, Vol. II, show the stations at which there are Civil Courts. The law relating to Civil Courts generally is contained in the following:—Statute 44 and 45 Vic., c. 58, ss. 144—151 (1881), Army; India Act XL of 1858, s. 25 (Minors); India Act I of 1859, s. 57 (Merchant Seamen); India Act IX of 1859, s. 16 (Claims to Property seized as Forfeited); India Act XV of 1869, ss. 4, 11 (Evidence of Prisoners); India Act VII of 1870, s. 6, sch. II, No. 1 (a), (Court Fees); India Act XXIII of 1871, ss. 4—7 (Pensions); India Act III of 1873 (Civil Courts, Madras); India Act XV of 1877, s. 4, sch. II, No. 13 (Limitation); India Act XIX of 1877, ss. 2, 3 (Ministerial Officers); India Act VI of 1878, s. 17 (Treasure Trove); India Act VII of 1878, ss. 8 (b), 71 (b), (Forests); India Act IV of 1882, s. 136 (Transfer of Property); India Act X of 1882, ss. 133, 140, 142 (Criminal Procedure); India Act XIV of 1882 (Civil Procedure); Mad. Act II of 1864, ss. 58, 59 (Recovery of Arrears of Revenue); Mad. Act VIII of 1865, ss. 78, 87 (Recovery of Rent); Mad. Act IV of 1866, ss. 1, 3, 8 (Exempting Service Inams from Reg. VI of 1831); Mad. Act I of 1870, ss. 20, 21 (Canal Tolls and Ferries); Mad. Act I of 1876, ss. 5, 6 (Assessment of Land Revenue); Mad. Reg. IX of 1822, s. 16 (Malversation: Collectors: Embezzlement: Appeals); Mad. Reg. VI of 1831, s. 3 (Hereditary Offices); Mad. Reg. III of 1832, ss. 2, 3 (Limitation). The detailed law is shown under the heads of "Civil Courts," "High Court" and "Puisne Judges" in Vol. II, App. LIV.

265. HIGH COURT, CIVIL SIDE.—The administration of civil justice is under the exclusive superintendence of the High Court, constituted by 24 and 25 Vic., c. 104, and by Letters Patent. The High Court consists of a Chief Justice and four Puisne Judges; the Chief Justice and one of the Puisne Judges being Barristers appointed by the Queen from the Bar of the United Kingdom, and the other Judges being experienced members of the civil service (covenanted or uncovenanted) appointed by Her Majesty on the nomination of the Local Govern-

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[4] NET RECEIPTS FROM STAMPS FOR A SERIES OF TEN YEARS.

		RS.
Fusly 1284	...	45,64,652
Do. 1285	...	47,81,648
Do. 1286	...	47,78,931
Do. 1287	...	46,85,376
Do. 1288	...	49,79,009
Official year 1879-80	...	50,77,925
Do. 1880-81	...	51,45,321
Do. 1881-82	...	51,49,500
Do. 1882-83	...	49,39,547
Do. 1883-84	...	52,00,902

[1] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN THE MAP SHOWING STATIONS WITH CIVIL COURTS.*—Amalápuram, Ambásamudram, Angádipuram, Anjengo, Ariyalúr, Árni, Aska, Badagara, Bápatla, Bellary, Berhampore, Bezváda, Bimlipatam, Calicut, Cannanore, Chávakád, Chicacole, Chidambaram, Chingleput, Chittoor, Cocanada, Coimbatore, Coondapoor, Cuddalore, Cuddapah, Cumbum, Dindigul, Ellore, Ernád, Erode, Gooty, Gúdalúr, Guntúr, Karúr, Kásaragód, Kávali, Kollegál, Krishnagiri, Kulitalai, Kumbakónam, Kurnool, Madanapalle, Madras, Madura, Manantoddy, Mangalore, Mannárgudi, Masulipatam, Máyavaram, Námakal, Nandalúr, Nandyál, Narsápur, Negapatam, Nellore, Ongole, Ootacamund, Palamcottah, Pálghat, Palni, Patukóta, Paramakudi, Párvatipur, Peddápuram, Penukonda, Poonamallee, Proddutur, Quilandi, Rajahmundry, Salem, Sivaganga, Shiyáli, Sholinghur, Srívaikuntham, Srívilliputúr, St. Thomas' Mount, Tadpatri, Taliparamba, Tanjore, Tanuku, Tekkali, Tellicherry, Tinnevelly, Tirukoilúr, Tirumangalam. Tirupati, Tirupatúr, Tiruturaipundi, Tiruvallúr, Tiruválúr, Tiruvádi, Tranquebar, Trichinopoly, Tuticorin, Udamalpet, Udipi, Vayitri, Vellore, Villupuram, Vizagapatam, Vizianagram, Vriddháchalam.

ment. The High Court exercises ordinary original jurisdiction over all suits the cause of action in which has arisen within the limits of the city of Madras, and it exercises appellate jurisdiction over all Civil Courts established throughout the Presidency. Original cases in the High Court are decided by a single Judge, from whose decision there is an appeal which is ordinarily heard and determined by a division bench consisting of two Judges. In the same manner appeals from the mofussil courts are heard and determined by a division bench of two Judges; but in any case in which the two Judges differ in opinion, the appeal is re-heard and finally determined by a full bench consisting of three or more Judges. By its Letters Patent the High Court possesses powers of extraordinary original jurisdiction, in the exercise of which it can call up and determine any suit or appeal from any court subject to its superintendence. By clause 18 of its Letters Patent (1865) it has power to hold sittings under a single Judge for the relief of insolvent debtors at Madras; such Judge exercising, within the Presidency (town) of Madras, such powers and authorities with respect to original and appellate jurisdiction and otherwise as are constituted by the laws relating to insolvent debtors in India. By its Letters Patent the High Court also possesses admiralty, testamentary, and matrimonial jurisdiction.

266. Madras Presidency Court of Small Causes.—All small suits of 2,000 rupees and below that value within the Presidency town are cognizable, and may be summarily determined by the Madras Court of Small Causes sitting under Act XV of 1882. The court consists of a First Judge who must be a Barrister-at-Law, and two other Judges who are as a rule appointed from the ranks of the uncovenanted service aided by an officer styled Registrar who tries suits up to 20 rupees in value. This court may also try actions of a small cause nature of more than 2,000 rupees in value, under section 20 of the above Act, if the parties consent to the jurisdiction of the court. It is not intended that the Small Cause Court should try questions involving title, or affecting immoveable property, but it may deal with title incidentally arising in the disposal of suits within the pecuniary jurisdiction of the court, such as suits for house and ground rent, &c. It may also deal with cases of tenancy and permissive occupancy under section 41 of the above Act. But the decision of the Small Cause Court in no way debars the parties from carrying their dispute into the High Court, so far as it affects title to landed property, there to be inquired into and determined in the regular way. There were 25,079 suits instituted in this court in 1883, of which 25,007 were small cause suits and 72 summary suits on negotiable instruments under chapter 39 of the Code of Civil Procedure.

267. District Courts.—In each of the districts into which the Presidency is divided, except Anantapore, Malabar and the Neilgherries, there is a chief court styled the District Court, which is presided over by a District Judge appointed from the covenanted civil service. In the district of Malabar there are two such courts of this class, styled the District Courts of North Malabar and South Malabar. The District Courts for Anantapore and the Neilgherries are those of Bellary and Coimbatore respectively. District Court is both an original court and an appellate court, and by section 27 of the Madras Civil Courts Act III of 1873 the District Judge is vested with general control over all the Civil Courts of whatever grade established in his district, subject however to rules prescribed for the purpose by the High Court. All appeals in suits decided by the inferior courts in which the amount litigated is 5,000 rupees and less, lie to the District Courts; but where the amount or value of the subject-matter of the suit exceeds 5,000 rupees, the appeal lies to the High Court direct under section 13 of the Act above mentioned. The law in reference to District Courts is contained in the following enactments:—India Act XIX of 1841, ss. 1—19 (Wrongful Possession in cases of Succession); India Act I of 1846, ss. 10, 12 (Pleaders); India Act XX of 1847, s. 7 (Copyright); India Act XXXIV of 1858, s. 8 (Lunacy, Supreme Courts); India Act XXXV of 1858, ss. 9—19, 12 (Lunacy, Mofussil Courts); India Act XXXVI of 1858, ss. 8,15 (Lunatic Asylums); India Act XV of 1859, ss. 22, 33 (Patents); India Act XXI of 1860, s. 13 (Registration of Societies); India Act XXVII of 1860, ss. 3, 5, 6 (Collection of Debts on Successions); India Act V of 1861, s. 40 (Police); India


MAP
Shewing Stations for
Civil Justice
in the Presidency
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
REFERENCE
MADRAS High Court
NELLORE Civil Judges' Stations
Poonamallee Sub Judges' Stations
Arnee District Moonsifs' Stations
REFERENCE
1 ANANTAPORE
2 ARCOT NORTH
3 ARCOT SOUTH
4 BELLARY
5 CANARA SOUTH
6 CHINGLEPUT
7 COCHIN
8 COIMBATORE
9 CUDDAPAH
10 GANJAM
11 GODAVERY
12 KISTNA
13 KURNOOL
14 MADRAS
15 MADURA
16 MALABAR
17 NEILCHERRY
18 NELLORE
19 SALEM
20 TANJORE
21 TINNEVELLY
22 TRAVANCORE
23 TRICHINOPOLY
24 VIZAGAPATAM
CENTRAL PROVINCES
BENGAL
BERHAMPORE
Berhampore
Parvatipore
Bajam
Chicacole
Vizianagram
Bimlipatam
VIZAGAPATAM
Vizagapatam
Yellamanchily
GODAVERY
CENTRAL PROVINCES
VIZAGAPATAM
NIZAM'S DOMINIONS
Peddapooram
RAJAHMUNDRY
Rajahmundry
Cocanada
Ellore
Bezwada
Goontoor
MASULIPATAM
Masulipatam
KURNOOL
Kurnool
Nundiaul
Cumbum
Ongole
BOMBAY
BELLARY
Bellary
Tadpatry
Gooty
Proddootore
CUDDAPAH
Cuddapah
Pennacondah
Nundalore
NELLORE
Nellore
Cauvaly
MYSORE
Coondapore
Madanapully
Tripatty
CHITTORE
Chittore
Vellore
Poonamallee
MADRAS
St.ThomasMt.
CHINGLEPUT
Chingleput
Arnee
Kristnagherry
Tripatore
MANGALORE
Mangalore
Cannanore
TELLICHERRY
Tellicherry
Badagara
Quilandy
CALICUT
Calicut
OOTACAMUND
Ootacamund
Collegaul
Tirocoilore
Villoopooram
SALEM
Salem
CUDDALORE
Cuddalore
Vriddhachellam
Chidambaram
COIMBATORE
Coimbatore
Palghaut
TRICHINOPOLY
Trichinopoly
TANJORE
Tanjore
Negapatam
Dindigul
Palney Hills
MADURA
Madura(East)
Madura(West)
Sivagunga
Paramacoody
Sreevillipootore
Tinnevelly
PALAMCOTTAK
Tuticorin
Anjengo
LACCADIVE ISLANDS
MALDIVE ISLANDS
CEYLON
SCALE 320TH INCH TO THE MILE OR 20275200 OF NATURE

Act IX of 1861, ss. 1—8 (Minors); India Act XVI of 1861, s. 19 (Stage Carriages); India Act XX of 1863, ss. 5—10, 14, 15 (Religious Endowments); India Act XXIII of 1863, s. 67 (Claims to Waste Lands); India Act X of 1865, ss. 239, 308 (Succession); India Act XV of 1865, s. 17 (Parsee Marriage); India Act IV of 1869, s. 4 (Divorce); India Act XV of 1869, s. 5 (Evidence of Prisoners); India Act VII of 1870, s. 22 (Court Fees); India Act X of 1870, s. 3 (Land Acquisition); India Act IX of 1872, s. 265 (Contract); India Act XV of 1872, ss. 45, 46, 48, 85 (Marriage of Christians); India Act II of 1874, s. 64 (Administrator-General); India Act III of 1877, s. 46 (Registration); India Act XV of 1877, s. 4, sch. II, No. 152 (Limitation); India Act XVIII of 1879, ss. 7, 14 (Legal Practitioners); India Act I of 1880, s. 6 (Religious Societies); India Act II of 1882 (Trusts); India Act IV of 1882, s. 57 (Transfer of Property); India Act VI of 1882 (Companies); India Act XIV of 1882 (Civil Procedure); and Mad. Act V of 1865, s. 4 (Amending India Act XXIV of 1859). The detailed law is shown under the heads of "District Courts" and "District Judge" in Vol. II, App. LIV.

268. SUBORDINATE JUDGES' COURTS.—The court next in importance to that of the District Judge is the Court of the Subordinate Judge, formerly styled a Principal Sudder Ameen, who is usually a native officer belonging to the uncovenanted service. The pecuniary jurisdiction of this officer is co-extensive with that of the District Judge, whose assistant he really is in the disposal of original and appellate work. Subordinate Judges are appointed to districts in which the civil work is unusually heavy. There is one Subordinate Judge in Bellary, Coimbatore, Tinnevelly, North Malabar and South Canara; two in each of the districts of Godavery, Madura, and South Malabar; and three in the district of Tanjore; or fourteen Subordinate Judges in all. Three first-grade Subordinate Judges draw Rupees 800 per mensem, five second-grade Rupees 650, and six third-grade Rupees 500. The District Judge is empowered by law to remove to his own court any suit filed in a Subordinate Court which he may for any reason see fit to dispose of himself, and to refer to the Subordinate Judge for disposal any suit or appeal not exclusively cognizable by the District Court. By section 28 of the Civil Courts Act the Government may invest any or all of these Subordinate Judges with the jurisdiction of a Judge of a Court of Small Causes for the summary trial of suits up to the amount of 500 rupees; as a fact all the Subordinate Judges are invested with such powers.

269. DISTRICT MOONSIFS' COURTS.—As a court proper, with all the functions of a regular judicial tribunal, the Court of the District Moonsif is the lowest in grade, but it is at the same time the most important to the country, as it is widely distributed, and is thus the chief court of first instance open to the people. There are 106 such courts in the Presidency, giving an average of five to a district. Twenty-five first-grade District Moonsifs draw Rupees 400 per mensem, twenty-five second-grade Rupees 300, twenty-five third-grade Rupees 250, and thirty-one fourth-grade Rupees 200. District Moonsifs are selected from native officers of experience who have risen in the subordinate ranks of the Judicial department or from members of the native bar. The District Moonsif's jurisdiction extends to suits the value of which does not exceed 2,500 rupees; and he is also invested with a Small Cause jurisdiction over suits up to 50 rupees in value. The law relating to District Moonsifs is shown in detail under the head of "District Moonsifs" in Vol. II, App. LIV.

270. MILITARY SMALL CAUSE COURTS.—In military cantonments the Cantonment Magistrate is generally invested by Government, under Madras Act I of 1866, with the powers of a Court of Small Causes with a pecuniary jurisdiction not exceeding 500 rupees. There are three such courts, at St. Thomas' Mount, Poonamallee, and Cannanore.

271. VILLAGE MOONSIFS' COURTS AND PUNCHAYETS.—A still lower court is that of the Village Moonsif, established by Madras Regulation IV of 1816, to meet the simple requirements of a village community. The head of the village is under the Regulation 'ex-officio' a Village Moonsif; local custom however sometimes has it otherwise. Under Madras Act IV of 1883, the Village Moonsifs' Jurisdiction Act, the Village Moonsif's judicial powers extend to suits for personal property up to

20 rupees, his decisions not being open to appeal; if the parties consent, he may try and determine similar suits up to 100 rupees in value in the character of an arbitrator, and when the litigant villagers wish such a course, he has power under Madras Regulation V of 1816 to summon a punchayet, generally of five persons, to decide suits for personal property without limitation as to value. Under Madras Regulation XII of 1816 Collectors of Districts may summon punchayets through the Village Moonsifs, and may, with the consent of parties, refer to such punchayets the settlement of suits respecting the occupying, cultivating and irrigating of land between proprietors or renters and their ryots; as well as claims to crops and lands and cases of disputed boundary. There were in all 36,642 Village Moonsifs in 1883, but the number of Village Moonsifs that actually exercised civil powers was 2,339. There were 48,967 suits instituted in these courts in the same year, the total value of the suits being Rupees 3,09,255. The law on the subject is shown in detail under the heads of "District Punchayets," "Punchayet," "Village Moonsifs" and "Village Punchayets" in Vol. II, App. LIV.

272. Revenue Courts.—Collectors, Sub-Collectors, and Assistant and Deputy Collectors in charge of a division sit as Revenue Courts and exercise judicial powers under the following Regulations:—(*a*) Madras Regulation IX of 1822 and India Act XXXVI of 1837, on charges against native servants of the Collector's public establishment, heads of villages, curnums and their goomastas and other village officers and servants, for exacting or corruptly receiving money for the performance of official acts, levying unauthorized cesses or extra collections for their private use, embezzling public money or other public property, falsifying, destroying, or concealing public accounts or other documents relating to the receipt or expenditure of public money or other public property; (*b*) Madras Regulation VI of 1831, regarding claims to hereditary village offices in the Revenue and Police departments, and to the emoluments attached to these offices; the ordinary courts have no jurisdiction in regard to such claims; and (*c*) Madras Act VIII of 1865 regarding disputes between landlord and tenant in which no question of title is involved. The Revenue Courts have power under the latter Act to enforce the terms of a tenancy, to compel the exchange of puttahs and moochilkas, to settle the rates of assessment or rent, to order sales under distraint, to award compensation for damages in such distraint, to arrest defaulters, and to eject tenants. These courts, however, do not possess jurisdiction when any 'bonâ fide' question of title to the land itself is raised in the course of such a suit.

273. Suits against Government and Government Officers in the Revenue Department.—When a suit is instituted against Government, or against Collectors or their subordinates for acts done in their official capacity, a report containing the facts of the case, for the accuracy of which the Collector is responsible, is submitted to the Board of Revenue with copy of the plaint and of the draft answer which it is proposed to file. When the Board consider the suit defensible, they are empowered to sanction its defence at the public cost unless the value of the suit exceeds Rupees 1,000, or unless there is some important principle involved, in which case the matter is submitted for the orders of Government. Difficult and doubtful cases are referred for the advice of the Government law officers. In simple suits between Government ryots for the transfer of puttah in which the Collector is made a defendant 'pro formâ' in view to registration, the defence may be undertaken by him without reference to higher authority. When a suit is decided, the result must be reported to the Board and copy of the decree and judgment submitted, and when the decision is adverse to Government, the report must be submitted in time to admit of orders being passed as regards an appeal if such course is deemed advisable. No formal application is required for sanction to defend suits regarding claims to waste lands under India Act XXIII of 1863, but a report of the institution of the suit is submitted for the information of Government. Suits against Government and Collectors are chiefly of the following description: (*a*) for the cancellation of sales for arrears of revenue under Madras Act II of 1864; (*b*) for transfer of puttahs and registration of lands; (*c*) disputes regarding irrigation rights; (*d*) claims to waste land assigned by Government to parties under the rules for the disposal of assessed waste; and (*e*) claims to house sites in the gramanuttam or village site.

274. STATISTICS.—The statement at foot exhibits the proportion in which the several classes of regular courts contributed to the total institution of original litigation in 1883.[2]

REGISTRATION OF ASSURANCES.

275. INTRODUCTION.—The primary object of a Registration law [1] is to obviate the inconveniences arising from the purchase of a title to immoveable property, the validity of which cannot be checked. It has been extended in India however so as to cover the leases of immoveable property, various transactions in connection with moveable property, and authorities to adopt a son. The law provides the machinery necessary for registration, lays down the duties and powers of the different classes of officers, declares what are the registrable documents and the effects of registration and non-registration, and prescribes the mode, time and place of presentation and registration. The main feature in the present registration law is the distinction of registrable documents into those which must be registered in order to obtain validity as evidence in a Court of Justice or what are called compulsory documents (exceeding Rupees 100 in value), and those which it is at the option of the parties to register or not as they think fit without any such penalty (below Rupees 100 in value). In the case of documents falling under the second head it is provided that a registered document of the same class shall take priority in evidence over a non-registered one. Optional registration has since the introduction of these arrangements in 1877 gradually expanded and represents now fully half of the total registrations of the Presidency.

276. LAW.—The enactments now wholly or in part affecting this subject in this Presidency are, India Act III of 1877 (the Indian Registration Act) abovementioned, and India Act XII of 1879 (an Act to amend the Code of Civil Procedure, the Registration Act, 1877, and the Limitation Act, 1877). The following are the documents specified in the Act as the subject of compulsory registration:—(*a*) instruments of gift of immoveable property; (*b*) other non-testamentary instruments which purport or operate to create, declare, assign, limit or extinguish, whether in present or in future, any right, title or interest, whether vested or contingent, of the value of 100 rupees and upwards, to or in immoveable property; (*c*) non-testamentary instruments which acknowledge the receipt or payment of any consideration on account of the creation, declaration, assignment, limitation or extinction of any such right, title or interest; and (*d*) leases of immoveable property from year to year, or for any term exceeding one year, or reserving a yearly rent;

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[2] ORIGINAL SUITS INSTITUTED IN REGULAR COURTS IN 1883.

Class of courts.	Ordinary suits.	Percentage.	Small causes.	Percentage.	Total.	Percentage.
Revenue courts ...	3,511	4·89	...	...	3,511	2·23
Cantonment courts of small causes ...	...	...	530	·62	530	·34
Agency courts ...	415	·58	...	...	415	·27
District Moonsifs' courts ...	66,927	93·19	74,064	86·53	140,991	89·56
Subordinate Judges' courts ...	672	·93	10,996	12·85	11,668	7·41
District courts ...	295	·41	...	...	295	·19
Total ...	71,820	100·00	85,590	100·00	157,410	100·00

[1] SKETCH HISTORY OF REGISTRATION OF ASSURANCES.—In the year 1834 the Court of Directors of the East India Company proposed the enactment of a law making registration of deeds relating to immoveable property compulsory under such penalties and safeguards as might be deemed requisite. Legislative proposals were accordingly made, and the subject was referred from time to time to various committees, until in 1864 a Bill containing the main substance of the present law on the subject was passed as India Act XVI of 1864. This Act has since undergone several modifications (vide India Acts IX of 1865, XX of 1866, XXVII of 1868, and VIII of 1871), and the law as at present administered is contained in India Act III of 1877, as amended by India Act XII of 1879. The principle of Act III of 1877 is the same as that of the law previously in force, India Act No. VIII of 1871, but the new enactment has effected several detailed alterations. The department was constituted as soon as India Act XVI of 1864 came into operation with a Registrar-General on Rupees 1,500 a month, District Registrars on 25 per cent. of the fees collected in their respective districts, and Deputy Registrars on 50 per cent. of the fees realized in their offices. It will be seen from the remarks in the text that the constitution remains very much the same at the present date.

(*e*) authorities to adopt a son, executed after the first day of January 1872 and not conferred by a will. They have deducted from them however the following exceptions :—nothing in clauses (*b*) and (*c*) above to apply to (i) any composition-deed ; (ii) any instrument relating to shares in a joint stock company, notwithstanding that the assets of such company consist in whole or in part of immoveable property, or (iii) any endorsement upon or transfer of any debenture issued by any such company ; (iv) any document not itself creating, declaring, assigning, limiting or extinguishing any right, title or interest of the value of 100 rupees and upwards to or in immoveable property, but merely creating a right to obtain another document which will, when executed, create, declare, assign, limit or extinguish any such right, title or interest ; (v) decrees and orders of courts and awards ; (vi) grants of immoveable property by Government ; (vii) instruments of partition made by revenue officers ; (viii) certificates and instruments of collateral security granted under the Land Improvement Act, 1871. The following are specified as optionally registrable :—(*a*) instruments (other than instruments of gift and wills) which purport or operate to create, declare, assign, limit or extinguish, whether in present or in future, any right, title or interest, whether vested or contingent, of a value less than 100 rupees, to or in immoveable property ; (*b*) instruments acknowledging the receipt or payment of any consideration on account of the creation, declaration, assignment, limitation or extinction of any such right, title or interest ; (*c*) leases of immoveable property for any term not exceeding one year, and leases exempted under section 17 ; (*d*) instruments (other than wills) which purport or operate to create, declare, assign, limit or extinguish any right, title or interest to or in moveable property ; (*e*) wills ; (*f*) all other documents not required by section 17 to be registered. The notifications and rules under sections 1, 69, and 78 of India Act III of 1877, which have the force of law, are given at foot.[2] The main provisions of the law under subject heads are given in Vol. II, App. LIV, under the title Indian Registration Act.

277. ESTABLISHMENT.—For registration purposes this Presidency is divided into 22 districts and 294 sub-districts, the districts being generally with the exception of Calicut and Tellicherry conterminous with the limits of the revenue collectorates. The sub-districts are also as a rule co-extensive with the talooks and divisions of deputy tahsildars and sub-magistrates. A list of the registrars' and sub-registrars' stations in the different districts is given in Vol. II, App. LXIII. The Government were originally in favor of employing existing judicial agency in performing the work of registration, but this idea was after due consideration abandoned. The department is at present administered by 22 registrars, 294 sub-registrars and 20 probationary sub-registrars under the control of an officer styled the Inspector-General of Registration. The 22 registrars are officers specially appointed. Of the 294 sub-registry offices 53 are presided over by talook sheristadars and sub-magistrates, and 241 by persons specially appointed. As registration increases and as the offices become self-supporting, the revenue officers, whose duties are sufficiently onerous and preclude them from satisfactorily attending to the registration work, are being relieved by the appointment of special officers duly trained as sub-registrars. Originally all registering officers and their establishments were paid by a commission on the fees collected, but this mode of remuneration has been superseded by a system of fixed salaries combined with commission. The registrars are located at the head-quarters of districts and are paid by fixed salaries varying

[2] NOTIFICATIONS AND RULES HAVING THE FORCE OF LAW UNDER INDIA ACT III OF 1877.—(1) Under section 1, Judicial notification, dated 26th September 1881, published in the Fort St. George Gazette of the 4th October 1881, declaring the Registration Act to be inoperative in the whole of the scheduled districts in this Presidency. (2) Under section 69, Judicial notification containing revised registration rules, published in the Fort St. George Gazette Supplement, dated 13th March 1883. The rules are divided into two parts. The first part contains certain general directions as to the languages which should be deemed to be commonly used in each district and sub-district, the territorial divisions with reference to which immoveable property should be described, the fines on delays in presentation and attendance leviable under sections 24 and 34 of the Act, the procedure on the presentation of documents for registration and the course to be followed to enforce the attendance of executants and witnesses. The second part embodies departmental instructions regarding the transcription of documents, the preparation of indexes, the issue of commissions, the custody of books, the destruction of documents and records, and other miscellaneous matters. (3) Under section 78, Judicial notification, dated 1st April 1884, contains a table of fees for the registration of documents and other miscellaneous transactions connected therewith. The fees are arranged according to the value of documents. The miscellaneous fees are levied for search or inspection, granting copies, attestation of powers of attorney, issue of commissions, attendance at private residences, travelling allowances for registration officers for private attendance, transmission of memoranda or copies, and for the safe custody of documents.

from 100 to 500 rupees, and by a commission of 20 per cent. on the amount of fees collected and remitted by them during the month, the maximum being fixed at Rupees 50 for all registrars except the Registrar of Madras, who is allowed Rupees 100 a month. The special sub-registrars who are distributed into seven classes or grades are also remunerated partly by a fixed salary and partly by commission, the former ranging from 30 to 75 rupees and the latter being at the same rate as that allowed to the registrars in the provinces. With the exception of three appointments in the Wynaud division of Malabar the salary is not by appointment but personal in the case of all officers, registrars or sub-registrars. The probationary sub-registrars who are graduates are paid 20 rupees, and those who are undergraduates and matriculates 15 rupees a month. The establishments of special registrars and sub-registrars are paid partly by salary and partly by a commission of 19 per cent. on the gross collections remitted into the treasury. The official sub-registrars receive a commission of 20 per cent. as personal remuneration on the fees they remit, and 24 per cent. for their establishments. The special registering officers are, as a rule, chosen from among the graduates and undergraduates of the Madras University, and they are required to acquire a practical knowledge of their duties in the office of the district registrar before taking up their appointments.[3]

278. PROCEDURE.—As soon as a document is presented for registration, it is first read to see whether it is correctly drawn up in accordance with the provisions of the Registration Act and rules, and whether it is correctly stamped according to its nature and value. If not correctly drawn up the document is rejected; if not correctly stamped it is impounded and sent to the Collector. If the document is properly drawn up according to the requirements of the Act and rules, the registering officer levies the prescribed fee and after examining the executant or executants and witnesses, writes the necessary endorsements on it. The document is then copied into the register-book. In registrars' offices the endorsements are written in English. The party who presents the document obtains two receipts, one for the document presented by him and the other for the fees paid by him; on returning the next day, or as the case may be, he receives back his document. In addition to the duties above mentioned, returns have to be prepared at the beginning of each month for submission to the registrar or to the Inspector-General, according as the registering officer is a sub-registrar or registrar. Besides the monthly returns there is also an account current prepared at the beginning of each month. This shows the receipts and disbursements for the preceding month and compares the registrations and receipts of that month with those of the same month in the previous year. Registrars and sub-registrars stationed at the talook head-quarters of a district remit their collections daily. Those who are stationed elsewhere remit the collections on the 10th and the 25th of every month. The inspection of registration offices by revenue officers is considered part of their duties. The principal points to which their attention is directed, are to see:—(*a*) That the Stamp and Registration Acts and the registration tables of fees are not infringed. (*b*) That the registers, indexes, returns, &c., are legibly written, and are free from erasures; that interlineations, &c., are duly attested, and that the registers are kept with neatness. (*c*) That the fees collected are paid intact into the public treasury. (*d*) That documents are registered and returned without delay. (*e*) That parties are not subject to any unnecessary annoyance or inconvenience; and that they are not required to pay more fees than are prescribed in the tables of fees. (*f*) That the grounds for refusal to register are valid.

[3] CLASSIFICATION AND PAY OF REGISTRARS AND SUB-REGISTRARS.

Registrars.	Salary.	Commission.	Total.	Sub-registrars.	Salary.	Commission.	Total.
Class I	500	100	600	Class I	75	50	125
Do. II	300	50	350	Do. II	60	50	110
Do. III	250	50	300	Do. III	50	50	100
Do. IV	200	50	250	Do. IV	45	50	95
Do. V	175	50	225	Do. V	40	50	90
Do. VI	150	50	200	Do. VI	35	50	85
Do. VII	100	50	150	Do. VII	30	50	80

(g) That registration officers do not absent themselves for long periods to attend private residences. (h) That no undue delay takes place in registration. Departmental rules not having the force of law are not in any codified form. They extend over a series of years and relate to matters of detail connected with the work of the department generally.

279. STATISTICS.—The statement at foot [4] exhibits the progress of the department since its first organization. Of the total number of 477,334 registrations in 1883-84, 232,519 were compulsory, 212,041 optional, and 32,774 miscellaneous. The amount at the credit of the department on the 31st March 1883 was Rupees 14,07,994. The surplus in 1883-84 amounted to Rupees 31,018, and raised the aggregate credit balance to Rupees 14,39,012.

REGISTRATION OF JOINT STOCK COMPANIES.

280. COMMERCIAL.—Commercial joint stock companies are either registered under the Indian Companies' Act, India Act VI of 1882,[1] or formed under some other special Act; or constituted by royal charter or letters patent. In the two latter cases the companies are subject to the terms of the special enactment, charter, or letters patent, under which they are respectively constituted. Most companies, however, are registered under the Acts of 1866 and 1882. Under the law no banking company or partnership can consist of more than 10 persons

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[4] NUMBER OF REGISTRATIONS, INCOME, AND EXPENDITURE.

Years.	Book I, Instruments relating to immoveable property.	Book IV, Miscellaneous register.	Total.	Increase over last year. Number of registrations.	Increase over last year. Rate per cent.	Receipts. RS.	A.	P.	Expenditure. RS.	A.	P.	Surplus or Deficit. RS.	A.	P.
1864-65 ...	8,952	4,103	13,055	...	...	5,489	6	0	49,259	15	8	− 43,770	9	8
1865-66 ...	119,881	19,911	139,792	126,737	970	1,42,871	12	8	1,76,677	4	7	− 33,805	7	11
1866-67 ...	89,229	11,196	100,425	...	...	2,34,537	7	1	2,11,237	1	7	+ 23,300	5	6
1867-68 ...	97,172	11,759	108,931	8,506	8	2,80,772	2	0	2,22,527	2	10	+ 58,244	15	2
1868-69 ...	107,740	11,561	119,301	10,370	9	3,11,947	11	0	2,30,191	6	0	+ 81,756	5	0
1869-70 ...	121,955	12,008	133,963	14,662	12	3,36,802	8	4	2,38,364	1	3	+ 98,438	7	1
1870-71 ...	135,754	13,176	148,930	14,967	11	2,82,031	8	2	2,43,883	5	6	+ 38,148	2	8
1871-72 ...	142,950	11,331	154,281	5,351	4	3,54,686	12	1	2,51,787	8	3	+ 1,02,899	3	10
1872-73 ...	176,969	13,278	190,247	35,966	23	3,26,394	2	8	2,38,941	12	4	+ 87,452	6	4
1873-74 ...	193,790	12,713	206,503	16,256	9	3,31,160	10	2	2,56,629	8	8	+ 74,531	1	6
1874-75 ...	198,858	13,767	212,625	6,122	3	3,71,788	12	0	2,64,374	4	9	+ 1,07,414	7	3
1875-76 ...	218,552	18,710	237,262	24,637	11·5	3,80,234	1	1	2,83,053	7	10	+ 97,180	9	3
1876-77 ...	233,852	17,024	250,876	13,614	5·7	3,92,005	15	9	3,13,155	0	8	+ 78,850	15	1
1877-78 ...	271,165	17,894	289,059	38,183	15·2	4,45,480	4	7	3,29,473	1	6	+ 1,16,007	3	1
1878-79 ...	320,786	22,650	343,436	54,377	18·8	5,20,428	3	11	3,83,156	0	2	+ 1,37,272	3	9
1879-80 ...	345,328	24,007	369,335	25,899	7·5	5,31,001	1	11	3,97,102	9	4	+ 1,33,898	8	7
1880-81 ...	389,006	25,208	414,214	44,879	12·2	5,67,718	1	11	4,43,657	4	1	+ 1,24,060	13	0
1881-82 ...	393,783	32,718	426,501	12,287	2·9	5,82,951	0	0	4,81,603	0	0	+ 1,01,348	0	0
1882-83 ...	404,361	30,051	434,412	7,911	1·8	5,74,710	0	0	5,50,353	0	0	+ 24,357	0	0
1883-84 ...	444,560	32,774	477,334	42,922	9·9	6,24,613	4	1	5,93,595	2	11	+ 31,018	1	2
Total ...	...	...	...	...	...	75,97,624	13	5	61,59,022	1	11	14,38,602	11	6

[1] SKETCH HISTORY OF REGISTRATION OF JOINT STOCK COMPANIES IN THE PRESIDENCY.—The first Act on the subject of joint stock companies is India Act XLIII of 1850, "for the regulation of Registered Joint Stock Companies." Registration was by this Act optional, and the Supreme Courts of Judicature at Calcutta, Madras, and Bombay were empowered, on petition, to order the registration of companies in those Courts. India Act XIX of 1857 amended the preceding Act and enabled the members of joint stock companies and other associations "to limit their liability for the debts and engagements thereof." It authorized seven or more persons, associated for any lawful purpose, to form themselves into an incorporated company, with or without limited liability, provided that they did not form themselves into a company with limited liability for the purpose of banking or insurance. It prohibited more than twenty persons carrying on in partnership any business having gain for its object, unless they were registered as a company. Companies were to be registered by the Registrar of Joint Stock Companies. The Registrar was to be appointed by Government; until such appointment, registration was to be performed by the Keeper of the Records of the Supreme Court. India Act VII of 1860 repealed so much of Act XIX of 1857 as restricted persons from forming themselves into a joint stock company with limited liability for the purpose of banking. India Act XXI of 1860 provided for the registration of literary, scientific, and charitable societies. The Indian Companies Act, Act X of 1866, consolidated the law on the subject and introduced the following changes :—(a) It enacted that no company or partnership consisting of more than ten persons could be formed for banking purposes unless it was registered, continuing at the same time the prohibition against more than twenty persons carrying on in partnership any other business having gain for its object unless as a registered company. (b) No company could be registered under Act XIX of 1857, unless it possessed a joint stock capital divided into shares of a certain fixed amount. Act X of 1866 comprehended companies formed on the mutual principle such as mutual loan companies and all associations deriving their funds from annual subscriptions or any other source than a share capital. (c) Another form of joint stock companies (limited) was legalized. The

without being registered, and no ordinary trading company similarly of more than 20 persons. Whatever the numbers, and apart from this statute provision, absence of registration exposes contributors to many inconveniences. They are then in fact partners, with all the risks of a large partnership. Registration gives contributors many facilities; for instance the right to alienate the share without reference to other contributors, and where the company is made 'limited,' the limitation of liability to a fixed amount. In cases where the company is registered as 'limited' the law requires more stringent provisions as to publicity of the accounts and proceedings. Under Act XI of 1876, section 63 (Presidency Banks' Act), "Bye-laws of the Bank of Madras" have been passed, having the force of law. The English Companies' Act, an elaborate statute forming a complete legal guide to this division of commercial law, is 25 and 26 Vic., cap. 89 (1862), subsequently however amended in parts. The law relating to companies is contained in the following:—India Act XV of 1848 (Officers of Supreme Court); India Act X of 1870, ss. 3, 6, 43, 46–50 (Land Acquisition); India Act XI of 1876, s. 57 (Presidency Banks); India Act I of 1877, ss. 21, 23, 27, 54 (Specific Relief); India Act III of 1877, s. 17(f) (Registration); India Act XV of 1877, s. 4, expl., sch. II, No. 112 (Limitation); India Act I of 1879, ss. 4, 5, sch. I, Nos. 8, 17, 40, 43, 51 (Stamp); India Act VI of 1882 (Companies); India Act XIV of 1882, ss. 17, ex. II, 124, 435, 436, 495 (Civil Procedure); India Act XV of 1882, ss. 15, 16, ex. III (Presidency Small Cause Courts); and the detailed law on the subject is shown under the heading of 'Companies' in Vol. II, App. LIV. The accounts of the companies are audited and rendered to shareholders yearly, and the documents relating to them, which are kept by the Registrar appointed under the Companies' Act, are open to the public on payment of a fee. The Registrar sees that the memorandum and articles of association are in accordance with the Act, and that the documents required to be furnished to him are duly sent in. There are heavy penalties for not sending in necessary documents, and the Registrar is instructed to apply at once to the Government Solicitor when any document is over-due. The Registrar also sees that such documents fully conform with the provisions of the law before registering them. He reports annually the condition of each company for the information of Government. The comparative statement at foot [2] shows the number of commercial companies registered and the amount of

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ordinary joint stock company, limited by shares, was a company formed on the principle of limiting the liability of the members to the amount unpaid on their shares. The new form of company was a company limited by guarantee. This was formed on the principle of having the liability of its members limited to such amount as they undertook to contribute to the assets of the company in the event of the same being wound up. The subscribers to such a company, in the event of insolvency, would not only be liable for the amount unpaid on their shares, but also for what they had undertaken to contribute beyond; and this additional contribution might vary from a small excess above whatever was unpaid on the shares to something resembling unlimited liability. (d) Insurance companies were by this Act allowed to be formed on the principle of limited liability. (e) Act XIX of 1857 provided only for the winding up of registered companies. Act X of 1866 contained provision for winding up all companies, whether registered or not. All the above Acts, with the exception of India Act XXI of 1860, have been repealed. The present law on the subject is contained in India Act VI of 1882. The first company on the Register of Joint Stock Companies for the Madras Presidency was registered on the 7th December 1860, and was called the Mail Coach and Carrying Company (Limited). The next company, the Carnatic Coffee Company (Limited), was registered after an interval of more than sixteen months, viz., on the 25th April 1862. For the next nine years the number of companies registered annually ranged from two to seven. In 1871-72 but one company was registered. Many mutual loan companies had been formed before this period without registration, only two having been registered; but when one of the unregistered companies, the Pursewaukum General Benefit Fund, sought in November 1871 to institute a suit in the High Court against one of its contributories, its plaint was rejected on the ground that it was not a registered company. The result of this decision was that nineteen companies (of which eighteen were mutual loan companies) were registered in 1872-73; and thirteen companies were registered in each of the two succeeding years. From 1860-61 down to 1883-84 there have been registered altogether 297 companies. The formal appointment of a Registrar by Government was made on the 23rd January 1875, the duties of registration before this being discharged by the "Keeper of the Records of the Supreme Court of the Presidency."

[2] NUMBER AND CAPITAL OF COMMERCIAL COMPANIES REGISTERED FOR THE LAST SIX YEARS.

Official year.	Number of companies registered during the year.	Amount of fees collected during the year.	Number of companies working at the end of the year.	Total nominal capital of companies registered during the year.
		RS.		RS.
1878-79	21	2,947	86	27,63,000
1879-80	14	2,015	88	18,49,163
1880-81	22	3,830	98	37,22,000
1881-82	31	5,227	112	47,91,500
1882-83	36	6,396	140	63,15,480
1883.84	45	7,563	168	56,31,404

fees collected for their registration, &c., from 1st April 1878 to 31st March 1884. Vol. II, App. LXXXVII, shows the commercial joint stock companies hitherto registered and still working in this Presidency and the foot-note [3] the principal of these grouped under subjects.

281. NON-COMMERCIAL.—India Act XXI of 1860 provides for the registration of societies or companies established for the promotion of literature, science or the fine arts for the diffusion of useful knowledge or for charitable purposes. Any seven or more persons associated for such purpose may form themselves into a society under this Act. The companies of this class hitherto registered in the Presidency with date of formation and capital are shown in Vol. II, App. LXXXVII.

MADRAS MUNICIPALITY.

282. INTRODUCTION.—The history of the Madras Municipality as such is shown in the foot-note.[1] A map of the municipality accompanies.[2]

283. LAW.—The following are the statutes and laws now in force, the whole or part of which affect the Madras Municipality: 33 Geo. III, cap. 52 (1792), an

[3] PRINCIPAL COMMERCIAL COMPANIES REGISTERED AND NOW WORKING ARRANGED BY SUBJECTS.

Banking Companies.

The Madras Hindoo Mutual Benefit Fund (Limited).
The Pursewaukum Hindoo Janaunoocoola Permanent Society (Limited).
The Pursewaukum Hindoo Suntata Sunga Nidhy (Limited).
The Triplicane Hindoo Sreenidhy Society, First Branch (Limited).
The Egmore Benefit Society, Second Branch (Limited).

Mutual Loan Companies.

The Madras Building Association (Limited).
The Madras Building Society, Fourth Branch (Limited).
The Neilgherry Mortgage Building and Provident Society (Limited).
The Madras Building Society, Fifth Branch (Limited).
The Neilgherry Permanent Building Society (Limited).

Gold Mining Companies.

The Southern India Alpha Gold Mining Company (Limited).
The Balaghaut Gold Mining Company (Limited).
The Kotagherry District Estates Gold Mining Company (Limited).
The Honnally Gold Mining Company (Limited).

Cotton Cleaning and Press Companies.

The Southern India Press Company (Limited).
The Jummalmudoogoo Press Company (Limited).
The Tiroopore Press Company (Limited).
The Ripon Press and Sugar Mill Company (Limited).

Mill Companies.

The Cochin Steam Mills Company (Limited).
The Buckingham Mill Company (Limited).
The Bellary Spinning and Weaving Company (Limited).
The Carnatic Mill Company (Limited).

Planting Companies.

The North Travancore Land Planting and Agricultural Society (Limited).
The Taliyaur Valley Planting Company (Limited).
The Kartairy Coffee and Cinchona Company (Limited).
The Byghoney Planting Company (Limited).
The Anamoody Planting Company (Limited).

Trading Companies.

The Coringa Company (Limited).
The Coimbatore Vartaca Vritty Dhanarjaca Sungam (Limited).
The Madras Stable Company (Limited).
The Buckingham Canal Steam Navigation Company (Limited). This company is being voluntarily wound up.
The Aryan Bank, Vizagapatam (Unlimited).

Railway Companies.

The Neilgherry-Rigi Railway Company (Limited).

Death Benefit Companies.

The Madras Provident Society (Registered).
The Madras Workingmen's Provident Society (Registered).
The Madras Hindoo Family Benefit Fund (Limited).
The Conjeeveram Hindoo Cootoomba Jeevanathara Nidhy (Limited).
The Coonnatoor Shiva Soobramanya Sawmy Hindoo Cootoomba Rakshaka Nidhy (Limited).

Pension Paying Companies.

The Hindoo Saha Cootoomba Jeevananoocoola Nidhy (Limited).

Marriage Relief Companies.

The Madras Washermanpett Hindoo Marriage Relief Fund (Limited).
The Chennay Veda Vinayager Nirantara Vivaha Nidhy (Limited).

[1] SKETCH HISTORY OF THE MADRAS MUNICIPALITY.—*Suggestion of a Corporation by Directors.*—Though not expressly so called, municipal government of a kind was introduced into Madras as early as 1688. The initiation was given by the Court of Directors, who wrote as follows in a despatch, dated 28th September 1687:—" If you could contrive a form of a corporation to be established of the natives mixed with some English freemen, for aught we know some public use might be made thereof; and we might give the members some privileges and pre-eminencies by charter under our seal that might please them (as all men are naturally with a little power), and we might make a public advantage of them, without abating essentially any part of our dominion when we please to exert it. And it is not unlikely that the heads of the several castes being made Aldermen and some others Burgesses, with power to choose out of themselves yearly their Mayor, and to tax all the inhabitants for a Town Hall, or any public buildings for themselves to make use of, your people would more willingly and liberally disburse five shillings towards the public good, being taxed by themselves, than six pence imposed by our despotical power (notwithstanding they shall submit to when we see cause), were Government to manage such a society as to make them proud of their honor and preferment, and yet only ministerial and subservient to the ends of the Government, which under us is yourselves. We direct nothing positively in this, but refer it to your consideration, and if you think it may redound to the public good, and that you

Act of Parliament for the good government of India; India Act II of 1866 (Cattle Disease Prevention Act); India Act XIV of 1859 and India Act VIII of 1867 (Town Police Acts); Madras Act VII of 1878 (Act for Maintenance of Police); India Act VIII of 1881 (Petroleum Act); India Act XI of 1881 (Municipal Taxation Act for payment by Secretary of State tax on Military officers); Madras Act I of 1884 (Madras Municipal Act); and Madras Act VII of 1884 (Amending Madras Municipal Act I of 1884).[3]

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may the better adapt it to the good of the place, and establishing of our absolute power over it, and unto some similitude to the forms of such like corporations in England where there is always a Governor, a superior power, and a garrison, we have thought fit to send you a copy of the late charter granted by His Majesty to the Borough of Portsmouth, where Sir John Biggs (Judge of the new Court of Admiralty at Madras) was Recorder, and understands well not only that constitution, but the practical way of proceeding it. We conceive their Court books must always be kept in the English tongue, and the Town Clerk must always be an Englishman that can speak Portuguese and Gentoo, and their Recorder must be the same. We think it may be convenient that in the said Court of Aldermen, being twelve beside the Mayor, there should never be above three English freemen and three Portuguese; the other seven to be Moors and Gentoos." (2) *First Century of the Corporation.*—On the 13th September 1688 the President and Council of the Presidency met accordingly at the Fort Hall to consult about the establishment of a corporation for the city. The original document of incorporation has not been found in the Government records so that it is not practicable to state what was the exact nature of the arrangements made; but mention is made in records of a Mayor, a Recorder, Aldermen, and Burgesses. The connection of this corporation with the administration of justice has already been detailed in the article on Law and Legislation. At the time of the two charters of 1726 and 1753 (that of King George I and King George II), they represented the only British courts of justice at this Presidency. The Recorder's Court however in 1798 took their place and left them then merely a municipal body. (3) *Municipal Action Proper.*—The Act of Parliament of 1792 for the "government of India" (33 Geo. III, cap. 52) contains clauses making provision "for the good order and government of the towns of Calcutta, Madras, and Bombay." Clause 151 of this Act provides for the appointment of Justices of the Peace, while clause 158 empowers the Justices of the Peace assembled at general or quarter sessions to make arrangements for the care of the streets. That is to say "to appoint scavengers for cleansing the streets of the said towns or factories of Calcutta, Madras, and Bombay, respectively, and to nominate and appoint such persons as they shall think fit in that behalf, and also to order the watching and repairing of the streets therein, as they respectively shall judge to be necessary, and for the purpose of defraying the expenses thereof, from time to time to make an equal assessment or assessments on the owners or occupiers of houses, buildings, and grounds in the said towns or factories respectively according to the true and real annual value thereof, so that the whole of such assessment or assessments shall not exceed in any one year the proportion of one-twentieth part of the gross annual value thereof respectively, unless any higher rate of assessment shall, in the judgment of . . . . the Governor in Council of the said respective Presidencies, become essentially necessary for the cleansing, watching, or repairing thereof, in which case the said . . . . Governor in Council shall or may on any such urgent occasion, by order in Council, authorize a further assessment, not exceeding in any one year the half parts of the amount of the ordinary annual assessment hereinbefore limited." The Act further provides for the collection of the assessment and for licensing the sale of spirituous liquors within the Presidency towns. This is the commencement of the Madras Municipality as such. (4) *Arrangements for Assessment.*—In 1836, on the 7th November, an Act (No. XXVIII of 1836) was passed by the Governor-General in Council, to the effect that "no assessment made by the Justices of the Peace for the Presidency of Fort St. George, under the authority of Act of Parliament of the 33 Geo. III, cap. 52, shall be levied until the same shall have been approved by the Governor in Council of Fort St. George." Another clause of the same Act enacts "that it shall be lawful for the said Governor in Council of Fort St. George, by an order in Council, to exempt any district, or portion of a district, from payment of any such assessment." (5) *Rates by Divisions.*—In 1841 an Act for "amending the law with respect to rates for municipal purposes within the town of Madras" was passed by the Governor-General in Council (No. XXII). This Act authorizes an arrangement by which the rate-payers of particular sections of the town may be entrusted "with the assessment, collections, and management of the rates of such division." (6) *India Act XIV of 1856.*—The several Acts just named continued in force until the year 1856, when India Act XIV of 1856, "for the conservancy and improvement of the towns of Calcutta, Madras, and Bombay," superseded the existing regulations for the cleansing of the town of Madras. Down to this date, so far as can be ascertained, the annual assessment on houses and lands in the town of Madras did not exceed five per cent. The municipal income under the management of the Justices of the Sessions averaged Rupees 1,00,000 yearly. About twenty Justices had the control of municipal affairs, meeting once every three months for the despatch of business. When the Justices handed over to the Municipal Commissioners, appointed under Act XIV of 1856, the executive charge of the town, there was a balance of Rupees 2,60,000 of municipal funds unexpended. (7) *Madras Act IX of 1865.*—The Municipal Act of 1856 gave no new taxing powers to the municipality, but this was remedied by the local Legislature in the revised Act of 1865 (Madras, No. IX) when three honorary members were appointed to aid three paid commissioners, and powers were given to raise the assessment on houses, buildings, and lands to 10 per cent., and to impose a tax or license on carriages and animals and on trades and professions, and to raise tolls on carriages, carts, and animals entering the municipal limits. (8) *Madras Act IX of 1867.*—In 1867 the management of the affairs of the town underwent another change, a new Act being introduced (Madras No. IX of 1867). By this the constitution of the commission was changed. Some of the old commissioners now became the paid servants of the municipality, while the administration devolved on a paid president and 32 honorary commissioners as representatives of the rate-payers, all being selected and approved by the Governor in Council. (9) *Recent Legislation.*—Madras Act IX of 1867 was superseded by Madras Act V of 1871 and by Act V of 1878; this again by Madras Act I of 1884. The revision of the municipal law effected by Act I of 1884 was undertaken mainly with a view to rectify errors in drafting in the old Act and to afford the municipality additional revenue. The professional tax has by this been raised and a further change has been effected by making every person liable to pay the tax on his total income from every profession or trade he may exercise, and not merely on the one from which the income is mainly derived. A new tax has been introduced in the form of license fees payable on all timber and firewood brought into the city, at rates not exceeding Rupees 5 per ton for timber and Annas 6 per ton for firewood. Similar license fees are also for the first time made payable on all cattle and sheep slaughtered for food within the city at a rate not exceeding Rupee 1 per head of cattle and Annas 2 per head of sheep. A tax on wholesale dealers and importers of spirituous liquors which found place in the Act has been objected to by the Government of India as an import duty affecting the revenue and will not be levied. Advantage was taken of the revision of the law to confer additional electoral privileges on the rate-payers which are referred to in the text. Provision has also been made for compulsory vaccination, for the control of infectious diseases, and for the appointment of a permanent health officer, and greater powers have been taken for dealing with matters of sanitation generally. Madras Act VII of 1884 altered the municipal year from the calendar to the official year.

[2] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN MAP OF THE MADRAS MUNICIPALITY.*—Chetpat, Conjeeveram, Egmore, Nellore, Perambúr, Poonamallee, Ráyapuram, Saidápet, St. Thomas' Mount, Tirupórúr.

[3] MUNICIPAL RULES HAVING THE FORCE OF LAW.—Rules having the force of law are (i) Election rules; (ii) Fire Code; (iii) Civil Leave and Pension Code; and (iv) Bye-laws for the regulation of—markets and slaughter-houses; burial and burning grounds; offensive and dangerous trades and places for cart-stand and livery and hack stables; proper use and maintenance of latrines and urinals; order in public thoroughfares; house service water-supply; water-supply for non-domestic purposes.


MAP
of the
Madras Municipality
Scale 1 Inch to the Mile
1 Mile
1st Division
2nd Division
3rd Division
4th Division
5th Division
6th Division
7th Division
8th Division
Fort St. George
Buckingham Canal
Toll Gate
CHINNA CHEMBRAMBAUKUM
Powder Mills
Old Railway Terminus
Sea Custom House
HARBOUR
High Court
Messrs Arbuthnot & Co.
Cathedral
Battery
Light House
Saluting Battery
Promenade
Napier Bridge
Marine Villa
Senate House
Presidency College
St. Thome Cathedral
Mission Church & School
R. C. Chapel
MYLAPORE OR LONG TANK
ADYAR RIVER
Cooum River
Central Museum
College Hall
Chintadripett
PEOPLES PARK
St. Peter's R. C. Church
Monigar Choultry
MAMBALAM
POOLIYOOR
KODANGIYOOR
TONDIARPETT
Ice House
Capper House Hotel
Horticultural Gardens
Cathedral
Govt. Telegraph & Genl. Post Offices
Messrs Parry & Co.

284. Constitution.—The administration now rests with a President and two Vice-Presidents and 32 other Commissioners. The President and the Vice-Presidents are salaried officers appointed by Government and are ex-officio Commissioners. They are liable to removal at the discretion of the Governor in Council or upon the vote of a majority consisting of not less than one-half of the total number of Commissioners. Of the 32 non-official Commissioners a maximum of 24 may be elected by qualified voters and the remaining 8 nominated by Government. To be elected Commissioner a candidate must (a) be of the male sex, (b) be 25 years of age, (c) be acquainted with the English language, (d) be resident in Madras or within two miles of it, and (e) have paid Rupees 100 in municipal taxes for the year preceding the election. The qualification for a voter is that the person must (a) be of the male sex, (b) be 21 years of age, (c) reside within the division for the commission of which he votes, and have paid for the year preceding that in which he votes Rupees 25 in municipal taxes, or, if not a resident, he must have paid Rupees 25 in house-tax on his property in that division, or for the preceding six months he must have occupied a house in the division at a monthly rent of Rupees 25, or (d) be resident in the division and be a graduate of some recognized university. The non-official Commissioners hold office for three years, after which they are eligible to be nominated or elected again. No person can be qualified to be or continue to be a non-official Commissioner, who has been sentenced to imprisonment for any offence, or who becomes bankrupt or insolvent, or who without President's permission is interested otherwise than as a shareholder in a joint stock company in any contract with or work for the Commissioners. A non-official Commissioner also vacates his office if he fails to attend three consecutive general meetings, but he may in such case be restored by a vote of the Commissioners at the next meeting.

285. The powers and duties of the Commissioners are as follows :—(i) To deal with the budget or supplemental budgets. (ii) To consider recommendations from the standing committee, to reduce or increase the amount of expenditure under any head of the estimate, or to transfer the moneys assigned under one head of expenditure in the estimate to another head with the sanction of Government: provided that when a budget or supplemental budget has been approved by the Governor in Council, no alteration of any kind shall be made therein without his previous sanction. (iii) To consider, approve or disapprove the annual administration report, and append such observations thereto as they think fit, prior to its submission to the Governor in Council. (iv) To adopt, modify or reject proposals for creating any new municipal office, the monthly salary of which does not exceed 400 rupees. (v) To sanction the raising of loans for works required for the purposes of the Act. (vi) To express an opinion on orders or references coming from the Governor in Council. (vii) To consider the periodical statements of receipts and disbursements and progress reports of work done, and pass such resolutions thereon as they think fit. (viii) To call the attention of the President to any neglect in the execution of municipal work, to any waste of municipal property, to the wants of any locality as noticed personally by any Commissioner or made known to him by the inhabitants, and to suggest any improvements which appear desirable. (ix) To bring forward general questions connected with the municipal funds, or any new measures relating to purposes authorized by the Act. (x) To sanction the appropriation of municipal land, or the acquisition of land, for any purpose not inconsistent with the provisions of the Act. (xi) To make, repeal, alter or amend bye-laws for the purposes of the Act.

286. The municipality is divided into eight divisions. Under Act IX of 1867 four persons residing within the limits of each division were appointed by Government to be Commissioners for that division. But under Act V of 1878 there must be at least one elected Commissioner for each division. The present distribution is as follows :—4 Commissioners for each of first, fifth, sixth and seventh divisions; 5 Commissioners for each of second and third divisions; 3 Commissioners for each of fourth and eighth divisions.

287. Six general meetings of the Commissioners must be held in the course of the year. Special meetings may be called by the President at his discretion and

must be called by him on the written request of ten Commissioners. Seven Commissioners are required to form a quorum at a general meeting and ten at a special meeting. The Commissioners appoint annually by ballot five of their number, who, with the President and the two Vice-Presidents, form a standing committee. The standing committee have access to all the accounts, and the President is bound to furnish them with any information they may call for as to receipts and disbursements. They conduct a monthly audit of the accounts independently of two paid official auditors appointed by Government. The standing committee prepare the budget and see to the due appropriation of budget grants with reference to progress report and have power to hear appeals against orders refusing licenses for dangerous or offensive trades, hack stables, cart-stands, bake-houses and timber depôts. They dispose of applications for pensions and gratuities, consider contracts and compositions for certain taxes, assist the President in acquiring and disposing of lands and attend to other similar duties. The Commissioners may also appoint from among themselves committees to inquire into any matter connected with the purposes of the Municipal Act.

288. Subject to the control of the Commissioners and the standing committee the entire executive powers is vested in the President, who is appointed by Government and paid from municipal funds. The two Vice-Presidents, one in charge of public works, conservancy and sanitation, and the other in charge of assessment and collection of taxes and tolls, hold their appointments direct from Government and are removable at their pleasure or upon a vote of the Commissioners not being less than one-half of their number. A special sanitary officer may be appointed by Government whenever any epidemic or unusual mortality prevails. Subordinate officers and servants thought necessary by the Commissioners for the purpose of the Act are appointed by the President. A permanent Health Officer may be appointed by the Commissioners and shall be so appointed if Government require it.

289. The departmental rules in force, other than those having the force of law, are numerous and form a volume known as Standing Orders.

290. TAXATION.—The taxes and tolls and payments leviable under the Municipal Act are as follows:—(i) tax on arts, professions, trades, and callings (not being a military profession or calling), and on offices and appointments classified as at foot.[4] Sixty denominations of traders, artizans, &c., are given in the schedule, most of whom are liable to be classified in any one of the above classes according to the discretion of the President subject to appeal in the first place to a committee of the Commissioners and ultimately to two Magistrates; (ii) tax on the salaries of persons exempted from payment of tax under No. 1; this tax was intended to meet the case of military officers exempt from profession tax, but its imposition has been disallowed by Government and it is improbable that the tax will be imposed; (iii) tax on houses, buildings and lands, being a rate not exceeding 10 per cent. on the estimated gross annual rent at which they might reasonably be expected to let from year to year; (iv) payments for occupation of lands vested in the Commissioners; (v) water-tax, being a rate on houses, buildings, and lands not exceeding 4 per cent. of their gross annual rent of buildings, &c., within the populous parts of the city and not exceeding 2 per cent. in other parts; the Governor in Council has power to exempt any division or part thereof from water-tax; (vi) lighting-tax, being a rate not exceeding 2 per cent. on all buildings and lands; (vii) tax on vehicles on springs and on animals varying from 4 annas half-yearly for asses to Rupees 10 half-yearly for 4-wheeled carriages drawn by two horses; (viii) tax on carts and other vehicles without springs 4 rupees each yearly;

[4] CLASSIFICATION OF PROFESSION TAX.

Class IB.—	Persons on salaries ranging from Rupees 5,000 per mensem					...	Rupees	350 yearly.
Do. D.—	Do.	do.	from Rupees 3,000	to Rupees	5,000	do.	,,	250 do.
Do. II.—	Do.	do.	,, 2,000	,,	3,000	do.	,,	150 do.
Do. III.—	Do.	do.	,, 1,000	,,	2,000	do.	,,	75 do.
Do. IV.—	Do.	do.	,, 750	,,	1,000	do.	,,	35 do.
Do. V.—	Do.	do.	,, 500	,,	750	do.	,,	20 do.
Do. VI.—	Do.	do.	,, 200	,,	500	do.	,,	10 do.
Do. VII.—	Do.	do.	,, 100	,,	200	do.	,,	5 do.

(ix) tolls on vehicles and on animals entering the municipal limits from 6 pies to 8 annas; (x) tax upon places for the sale of spirituous and intoxicating liquors from Rupees 12 to Rupees 75 annually; (xi) tax upon wholesale dealers in spirituous and intoxicating liquors from 3 pies to 2 annas per gallon. This last tax under instructions from the Government of India will not be levied.

291. The above rates and taxes are all in force; the tax on salaries is paid by the Secretary of State under Act XI of 1881; the house-rate is levied at 10 per cent., water-tax at 4 and lighting-tax at $1\frac{1}{4}$. Rates and taxes may be recovered by distress and sale of the goods and chattels of the defaulter. Any person carrying on his profession or trade without registration is liable, on conviction before a Magistrate, to a penalty not exceeding twice the amount payable for a registration certificate. Appeals against assessments are heard and determined by two Magistrates, who are empowered to state a cause for final decision by the High Court.

292. Under Act IX of 1867 the town police were paid from municipal funds, but the municipality was relieved of this charge by Act V of 1871, which at the same time extended the application of the municipal funds to purposes of education, the establishment of hospitals, vaccination, and other works of local public utility. The Municipal Act of 1884 retains these latter charges, and under Act VII of 1878 power is given to the Governor in Council to require municipalities to contribute 50 per cent. of the police charges, excepting marine. This contribution has never been levied from the Municipality of Madras.

293. The population of nearly 400,000 inhabitants among whom the taxation is distributed are scattered over an area of 27 square miles.

294. WORK DONE.—The purposes on which the municipal fund can be expended are shown in the foot-note.[5] The next note [6] indicates some of the main benefits already attained in Madras town by the municipal agency.

295. STATISTICS.—In 1856 the municipal revenue was about one lakh of rupees. In 1883 it was Rupees 8,50,000. The taxation now stands at Rupees 1-13-0 per head of the population as compared with Rupees 3-14-10 in Bombay and Rupees 3-7-6 in Calcutta. The receipts and charges are at the present date approximately as shown

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[5] PURPOSES TO WHICH THE MUNICIPAL FUNDS ARE APPLICABLE UNDER THE LAW.—(1) *Public Safety.*—Lighting public streets, places and buildings; extinction of fires; the control, supervision and removal of dangerous places, buildings, trades and practices; the regulation of traffic; and the prevention and removal of obstructions in public streets or places. (2) *Public Health.*—"*a*" Construction, repair and maintenance of hospitals and dispensaries; vaccination; training of medical practitioners and subordinates; training and supervision of vaccinators; registration of births and deaths; taking a census; and other measures of a like nature. "*b*" Construction, maintenance, supervision and control of public markets and slaughter-houses, latrines, privies, urinals, drains, sewers, drainage works, sewage farms, tramways and other works for the removal of sewage, water works, drinking fountains, tanks, and wells, parks and gardens; the acquisition of land necessary for any of these purposes; reclamation of unhealthy localities; and other sanitary measures of a like nature. "*c*" Cleansing and watering of streets and sewers; scavengering; removal of excessive or noxious vegetation; and generally the abatement of all nuisances. "*d*" Regulation and control of offensive or dangerous trades, of unhealthy buildings or localities, burial and burning grounds; and removal of, and providing sites for, burial and burning grounds. (3) *Elementary Instruction.*—"*a*" Construction and repair of school-houses for the poor. "*b*" Elementary instruction of the poor. (4) *Public Convenience.*—"*a*" Construction, maintenance and alteration of streets, bridges, causeways, culverts and the like; regulation of buildings; removal of undue projections; naming streets and numbering houses; and planting trees in public streets and places. "*b*" Construction, purchase and maintenance of all buildings required in order to give effect to the purposes of this Act. "*c*" Survey of houses and lands. (5) *General.*—All matters necessary for, or conducive to, public safety, health or convenience.

[6] NOTES ON WORK EFFECTED BY THE MUNICIPALITY.—*Public Works.*—"*a*" There are in Madras about 271 miles of road, and 176 miles are metalled. During each year about 50 miles are entirely relaid, while minor repairs are executed on the remainder. The amount spent yearly on the upkeep of roads is Rupees 1,00,000. "*b*" The municipality construct and maintain such buildings as slaughter-houses, markets, latrines, cart-stands, &c., burial and burning grounds, &c. The amount spent in 1883 for this purpose was Rupees 6,400. There are belonging to the municipality in Madras 2 markets, 5 slaughter-houses, 168 latrines, 1 cart-stand, 3,252 dust-bins, and 15 burial-grounds. About 250 dust-bins and 10 latrines are now being erected yearly. The former cost about Rupees 8-8-0 each and the latter about Rupees 350 each. "*c*" The drains and ditches in Madras amount to about 620 miles, but the drainage is not good and is under improvement. A scheme for the drainage of Black Town is under construction by which all sewage will be conducted by surface drains as far as possible to a pumping station, where steam pumps will lift the sewage and discharge it by means of a closed pipe and afterwards of an open channel to a large sewage farm to the north of the town. Rupees 79,000 were spent in 1882 and Rupees 1,64,000 in 1883 for this purpose. "*d*" The amount expended by the Commissioners up to 31st December 1383 for the supply of Red Hills water to the town was Rupees 28,50,000. The annual maintenance of the water-supply including interest on loans for construction is about Rupees 1,52,000. The works at the end of 1883 consist of the open delivery channel from the Red Hills to Madras (7 miles long), 85 miles of piping, 991 hydrants, 548 fountains, and 636 valves; 1,811 houses have private service pipes. (2) *Conservancy.*—"*a*" The cost of the conservancy of Madras including medical charges amounts to about Rupees 3,17,000 yearly. The present staff is, for street conservancy, 235 rubbish carts, 120 box carts, 22 latrine carts, 822 men, 228 women and boys. For house conservancy 118 scavengers, 14 boatmen, 29 lorries, and 31 single bullock carts. "*b*" 473 tons of rubbish, 397 tons of silt, and 46 tons of night-soil are removed daily. All the latrines are conserved twice a day. "*c*" The Commissioners have five large and three small sewage farms, on which the sewage from various portions of the town is disposed of daily, and from which an income which almost meets expenditure is realized.

at foot.[7] The next statement [8] shows for the past five years the income, incidence of taxation, expenditure, and other particulars. Previous to 1871-72 the municipal accounts were kept for the calendar year, and subsequently to that for the official year ending 31st March. In 1879 the calendar year was reverted to, but Act VII of 1884 again changed the municipal year to the official year. Column 5 in the statement refers to the taxation authorized by the Act and not to all sources of income.

MOFUSSIL MUNICIPAL ADMINISTRATION.

296. Introduction.—The number of municipalities in existence at the end of the official year 1884-85 in the Madras Presidency,[1] excluding the town of

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[7] Receipts and Charges at the present date.

	RS.		RS.
Taxation	6,93,000	Public Works	1,88,000
Rents	36,000	Education	14,000
Fines, &c.	7,000	Sanitation, &c.	3,03,000
Contribution from Provincial Funds	17,000	Miscellaneous	65,000
Miscellaneous	57,000	Supervision	1,04,000
		Pensions	3,000
	8,10,000	Debt, Interest	1,33,000
			8,10,000

[8] General Statistics for five years.

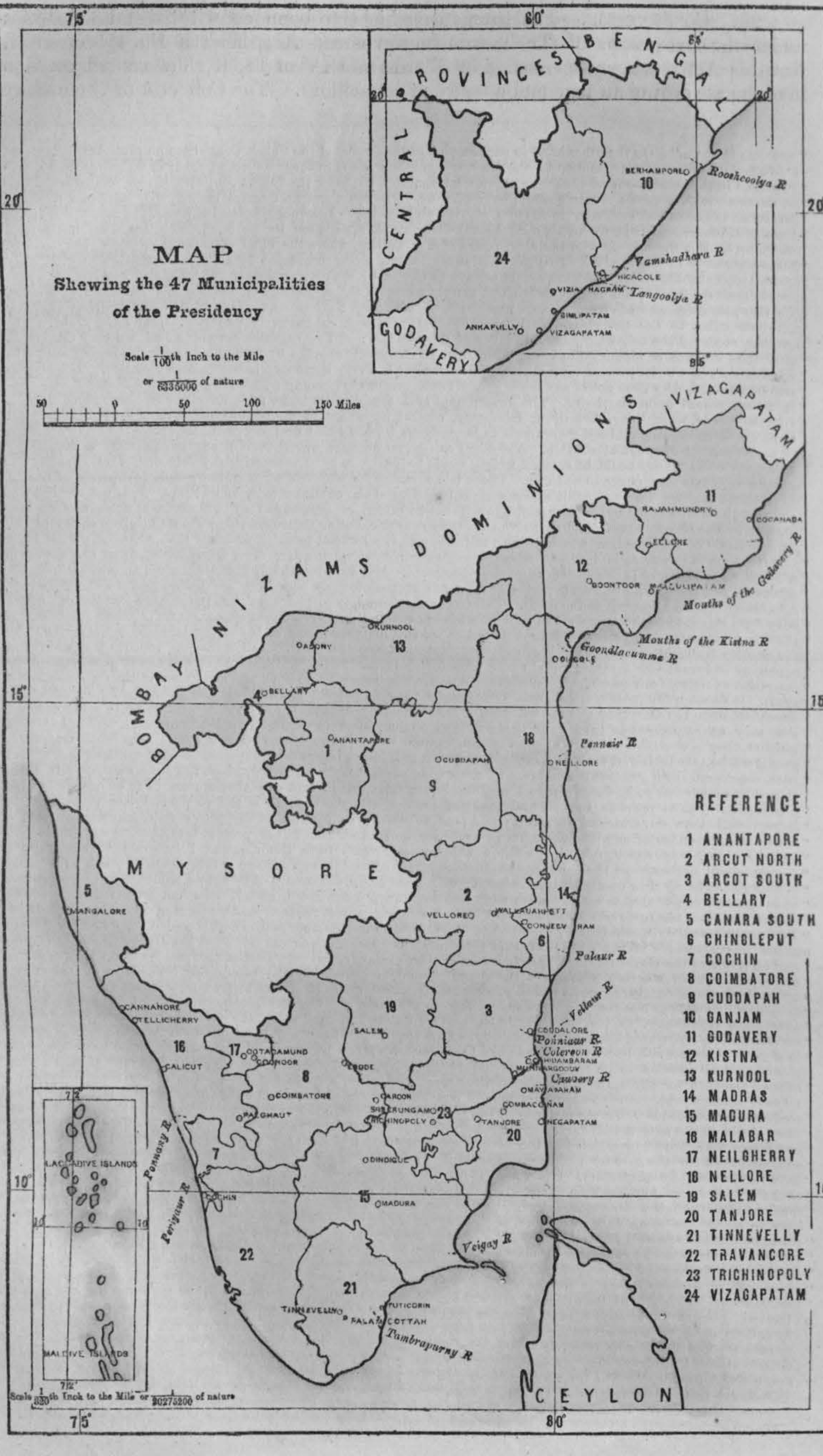
Years.	Population.	Number of members of committee.								Total income from all sources.	Incidence of taxation per head of population.	Amount of debt.	Total expenditure.	Sinking fund.
		Ex-officio.	Nominated.	Elected.	Total.	Officials.	Non-officials.	Europeans.	Natives.	RS.	RS. A. P.	RS.	RS.	RS.
1879 ...	398,777—397,552	3	17	15	35	12	20	13	19	8,31,102	1 13 5	14,50,000	8,03,868	2,57,322
1880 ...		3	17	15	35	12	20	13	19	7,56,801	1 11 1	14,50,000	7,84,967	3,03,537
1881 ..		3	17	15	35	14	18	13	19	7,78,655	1 11 4	14,50,000	7,11,953	3,55,455
1882 ...		3	18	14	35	13	19	11	21	8,56,436	1 12 1	18,00,000	7,90,464	4,03,236
1883 ...		3	17	15	35	9	23	10	22	8,49,470	1 13 0	21,00,000	8,56,329	4,50,363

[1] Sketch History of Mofussil Municipalities in this Presidency.—*Origin.*—It has been more than once remarked that though a great similarity is to be traced between the primitive habits of the East and West in the matter of village communities, yet the institutions of free cities and boroughs in mediæval Europe have had no counterpart under any of the native Governments of India. Though from the universal prevalence of the village system something of the sort might naturally have been looked for in cities, municipal institutions are in reality the creation of the British Government. Leaving out of consideration the town of Madras, municipal action in the rural parts of this Presidency dates from the passing of India Act XXVI of 1850, which amended the provisions of the Act for Bengal, India No. X of 1842, and applied them to the Madras Presidency. Section 2 of the Act provided for its introduction wherever it appeared to the Governor in Council that the inhabitants of any town were "desirous of making better provision for making, repairing, cleaning, lighting or watching any public streets, roads, drains or tanks, or for the prevention of nuisances, or for improving the town in any other manner," and the Act might be introduced for some of those purposes only if the inhabitants so wished. The commissioners consisted of the magistrate and such of the inhabitants as the Governor in Council might appoint, and they were removable at pleasure. The raising of the necessary ways and means, the definition and prohibition of nuisances, and the fixing of penalties up to Rupees 50, as well as all matters connected with the establishment necessary for carrying out the purposes of the Act, were to be provided for by bye-laws framed by the commissioners and approved by Government. Finally, Government was empowered to suspend the operation of the Act in any town, and to appoint any person to examine into, and report on, the conduct of the commissioners in carrying out the Act. From the above it will be seen that the Act could only be introduced, in the first instance, in accordance with the wishes of the inhabitants, and that after its introduction its provisions were merely enabling. Further the commissioners were left very much to themselves in their deliberations and operations. The Act was very little used. (2) *Voluntary associations.*—Subsequently to this there sprang into existence, without the sanction of any legislative Act, a number of purely voluntary associations for sanitary and other municipal purposes. These associations were assisted by a Government grant-in-aid equal in amount to the sum raised by private subscription. In the year 1863-64 the amount so granted was Rupees 22,729 as follows:—to Nellore Rupees 500, to Kurnool Rupees 2,150, to Vizagapatam Rupees 10,072, to Bimlipatam Rupees 5,384, to Vizianagram Rupees 4,623, total Rupees 22,729. In the two following years similar associations were formed in the districts of Bellary and Godavery. (3) *First Madras Act.*—The next Act was the Towns Improvement Act, Madras No. X of 1865. This had much larger compelling powers. The Government had for some time had under consideration the expediency of requiring the inhabitants of towns, who, under the fiscal arrangements in force up to that time, contributed a far smaller proportion to the general revenues than the inhabitants of the rural districts, to defray a portion of the cost of the town police, with the view both of reducing the charge which its maintenance entailed upon the State and so increasing the sum available for the general police, and of providing funds for placing the police in towns upon a more efficient footing than had hitherto been practicable. It was pointed out at the time that the monied and trading classes who resided and carried on their business in towns did not pay their fair share of taxation, and that at the same time, owing to the number of persons congregated in a small space, and the increased facilities for crime which were thereby occasioned, the expense of police protection was greater in town than in country. The original intention was to make compulsory only that part of the taxation which was required to defray police

Madras, was 47, with a population, according to the census of 1881, of 1,323,970, as particularised below.[2] The municipal towns are also shewn in the accompanying map.[3] The statement next given [4] shows the result, if they are arranged in classes, according to population.

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charges, while the raising of a rate for the purposes of conservancy or other purposes of local improvement was to be left optional with the rate-payers, as under the former Act. It was, however, eventually resolved (section 25) that the funds compulsorily raised should be applicable not only to the expense of the police force, but also to the "construction, repairing, and cleaning of drains, the making and repairing of roads, the keeping of the roads, streets, and tanks clean, and generally, doing such things as may be necessary for the preservation of the public health." The amount to be raised for these purposes was to be fixed by Government, who indicated the means of taxation, and one-fourth of the sum so fixed was to be paid by Government as a grant-in-aid. The reasons for inserting in the Act the contribution to be paid by Government are thus stated by Mr. A. J. Arbuthnot, who was in charge of the Bill—"First, in order that it "may be clearly seen when the Bill goes forth to the various town committees who will be affected by it that the whole "burthen of maintaining the police is not to be laid upon the municipalities, but that the Government will continue to "bear its fair share. Secondly, that it will operate as a practical check upon the Government and its officers in regard "to the amount of the tax to be required in each town, for, as the Government contribution is to be in proportion to the "rate, the Government will naturally scrutinize the recommendations of the local officers as to the establishments "required and the charges to be incurred." (4) Besides the sums compulsorily fixed by Government the commissioners were, with the sanction of Government, empowered (section 29) to raise further sums for other municipal purposes, such as lighting, prevention of fire, water-supply, &c., thus retaining in a modified degree the optional provisions of Act XXVI of 1850. (5) Under the Act of 1865 the independence of the commissioners was restricted in more than one direction. They were bound to raise the amount fixed by Government, and if they failed to do so, the district magistrate was empowered to raise the sum himself. Three ex-officio members, viz., the district magistrate, the local magistrate, and the range officer of the Public Works Department, sat on the board itself. The district magistrate appointed the vice-presidents of all municipalities within the district. The president, too, was invested with the power of appointing such establishment as the commissioners might sanction for the purposes of the Act, and in case of emergency he could exercise all the powers of the commissioners except such as the Act expressly reserved to the commissioners at a meeting. The commissions were to consist of not less than five inhabitants of the town appointed by Government, and the term of office was limited to one year, subject to re-appointment. The nature, amount, and method of collection of the various rates, taxes, tolls, and fees were strictly defined, and a large body of conservancy clauses were enacted in place of the optional rules and bye-laws which the commissioners were empowered to make under the old law. (6) The Act was not generally introduced until the end of 1866, at which time it was brought into force in 29 towns. The number rose to 41 in 1867-68. In 1869, three other towns were added to the list, and the receipts amounted to Rupees 8,22,472 exclusive of balances and Government contribution. The Administration Report for 1868-69 states that "the introduction of the Act at the close of the year 1866, which was a period of extreme distress, "was viewed with great disfavor; but except at Vellore and Cuddalore, where some slight disturbances occurred, the "merchants having closed their shops, the Act has been worked without overt resistance being experienced." It must be admitted however that the first attitude of the native community towards municipalities introduced by Acts of Government is always that of dislike, inasmuch as the great majority of the population are keenly alive to the disadvantages of increased taxation while they to a very little extent understand the necessities of town government. Since 1865 municipalities have always been introduced on the recommendation of the Collector. (7) *Second Madras Act.*—The Act of 1865 had hardly been brought into operation before the necessity of extending its scope and revising its provisions began to be discussed. It was found that the operation of the Voluntary Education Act, No. VI of 1863, was uncertain and unsatisfactory. Similarly that section 29 of the Municipal Act mentioned above was taken little or no notice of. (8) Eventually a new Act, known as the Towns Improvement Act, No. III of 1871, was brought in by Mr. A. J. Arbuthnot, and included all the above objects among those to which the funds raised under the Act should ordinarily be applicable. At the same time Government withdrew the grant-in-aid of 25 per cent. of the compulsory expenditure which under section 27 of the Act of 1865 it was bound to contribute. This retrenchment was partly for financial reasons and also partly for the sake of consistency as it would have been impossible to make similar State grants in aid of the new taxation which was being imposed for local purposes in the rural tracts under the Local Funds Act, No. IV of 1871, and there was no valid reason for retaining the grant-in-aid system in the one case and disallowing it in the other. As a partial set-off, the municipal funds were no longer made applicable to the payment of any charges for the town police, and a slight revision of the taxation schedules was made so as to increase the resources of the commissioners; but no new rates or taxes were imposed. The net financial result of these arrangements was as follows. By the change the municipalities gained in the direction of having no longer to contribute 75 per cent. of police charges; they lost however in having had thrown on them four new charges, namely, those for hospitals and dispensaries, for schools, for birth and death registration, and for vaccination. (9) Concurrently with these alterations in the scope of the Act and in the resources at the disposal of the commissioners several equally important changes were made in the constitution of the corporations themselves. Experience had shown that as a rule the occasional presence of a European officer as a working member of the commission was essential to the efficient working of the Act, and it was therefore provided that Government might appoint any person whatever as a commissioner even though not an inhabitant of the town, subject only to a limitation as to the proportion of officials on each board; the qualification for the post of commissioner was made more elastic; the term of office was increased from one year to three; the number of ex-officio members was reduced from three to two, the Collector being substituted for the district magistrate as president, and the local revenue officer taking the place of the local magistrate and of the range officer of the Public Works Department; the appointment of the vice-president was taken out of the president's hands and vested in Government; provision was made for the election of commissioners by the rate-payers in such cases and subject to such rules as Government might direct, and a similar provision was made for the election of vice-presidents by the commissioners. The Government contribution of 25 per cent. of the sanctioned expenditure having been withdrawn and there being no police charges to provide for, there was no longer the same necessity for giving Government the power to fix the amount of taxation and to levy it through the district magistrate if the commissioners failed to do so. Consequently the sections (27 and 28) which gave that power were not re-enacted. The right, however, to fix the amount of taxation is still maintained by Government under section 33 of Act III of 1871, which provides that the Governor in Council may pass such orders as he shall think fit on the annual budgets, "and such orders shall be binding upon the commissioners and shall be carried out by them so far as the means at their disposal will permit." (10) Section 31 of the Act provides for the appointment by Government of officers to inspect and superintend the working of the Act. No special appointments have yet been made under this section, though the general inspecting staff of Government report the result of their inspections for the information of Government or the Collector as the case may require. (11) The result of the Act of 1871 was to place the commissioners in a more responsible position and to diminish the necessity for Government interference into details, while the sections rendering permissive the election of commissioners and of the vice-presidents provided the machinery for granting a still greater degree of independence in the future. (12) *Introduction of elective systems under ditto.*—The propriety of permitting the election of commissioners was considered when the Act of 1865 was under discussion. In addition to the usual reasons given in favor of elections, M.R.Ry. C. Runga Charloo, the late Diwan of Mysore, argued that it was "a great thing for Government in this "country to be able to tell the people that any shortcomings in the administration of the tax is due to the members "elected by themselves and thus any interposition of its authority for the protection of the public interests will be


MAP
Shewing the 47 Municipalities
of the Presidency
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
50 0 50 100 150 Miles
CENTRAL PROVINCES
BENGAL
GODAVERY
BERHAMPORE
Rooshcoolya R
Vamshadhara R
Langoolya R
VIZAGAPATAM
ANKAPULLY
SIMLIPATAM
NIZAMS DOMINIONS
BOMBAY
MYSORE
CEYLON
RAJAHMUNDRY
COCANADA
ELLORE
GOONTOOR
MASULIPATAM
Mouths of the Godavery R
Mouths of the Kistna R
Goondlacumma R
ONGOLE
KURNOOL
ADONY
BELLARY
ANANTAPORE
CUDDAPAH
NELLORE
Pennair R
MANGALORE
VELLORE
WALLAJAHPETT
CONJEEVERAM
Palaur R
Vellaur R
CANNANORE
TELLICHERRY
CALICUT
OOTACAMUND
COONOOR
COIMBATORE
PALGHAUT
SALEM
ERODE
KAROOR
TRICHINOPOLY
TANJORE
NEGAPATAM
COMBACONAM
CUDDALORE
Ponniaur R
Coleroon R
Cauvery R
DINDIGUL
MADURA
COCHIN
Ponnany R
Periyaur R
Veigay R
TINNEVELLY
PALAMCOTTAH
TUTICORIN
Tambrapurny R
LACCADIVE ISLANDS
MALDIVE ISLANDS
Scale 1/320th Inch to the Mile or 1/20275200 of nature
REFERENCE
1 ANANTAPORE
2 ARCOT NORTH
3 ARCOT SOUTH
4 BELLARY
5 CANARA SOUTH
6 CHINGLEPUT
7 COCHIN
8 COIMBATORE
9 CUDDAPAH
10 GANJAM
11 GODAVERY
12 KISTNA
13 KURNOOL
14 MADRAS
15 MADURA
16 MALABAR
17 NEILGHERRY
18 NELLORE
19 SALEM
20 TANJORE
21 TINNEVELLY
22 TRAVANCORE
23 TRICHINOPOLY
24 VIZAGAPATAM

297. CONSTITUTION.—The towns have hitherto been constituted municipalities under the provisions of the Towns Improvement Act, Madras No. III of 1871. But this Act has been superseded by Madras Act IV of 1884. The council consists in each case of a chairman and a board of councillors. The Collector of the district

"welcome to them." On the other hand in paragraph 8 of the Report of the Select Committee on that Act, it is stated —"We have given our best attention to the various arguments urged in these papers in favor of adopting the elective "principle in the establishment of the projected municipalities, but after the fullest consideration we feel satisfied that "at the present time such a measure would be premature. The system of an elective municipality has been tried and "has failed in both the Presidency towns of Calcutta and Bombay. It is not proposed at present to attempt it in the "town of Madras; and it is, we think, a significant fact that no application for its introduction has been made from "any town in this Presidency with the single exception of Calicut, where the chief officer of the district has declared "himself strongly in favor of it." (13) When this matter was again considered by a Select Committee in 1871, they recommended that the vice-presidents should always be elected by the commissioners, and embodied a provision to that effect in their draft Bill; but it was struck out mainly owing to the opposition of native opinion, and the election of both vice-presidents and of commissioners was left permissive with Government. (14) In 1874 the propriety of giving immediate effect to the permissive sections of the 1871 Act was exhaustively discussed. (15) Lord Hobart, the Governor, recorded the following minute in favor of the measure:—"The question here before us is a very important "one. The creation of municipalities was (there can be no doubt) intended by its authors as a step towards local self-"government; but in its present form municipal government is a very short step indeed in that direction. The popula-"tion of a municipality does not in any sense govern itself except that some of its leading men, nominated by Govern-"ment, are placed upon the board. The government of a municipality is, in fact, an oligarchy dependent upon a "superior power, which may, directly or indirectly, control its action to almost any conceivable extent. The most "important step towards real self-government in large towns would be that now proposed—the choice of native members "of municipalities by popular election. And there can be no question but that if in any municipality a sufficiently "numerous constituency could be created which would be likely to elect men with any fair degree of capacity for "government, this step ought to be taken. There is no excuse for withholding from the people any degree of liberty, "except that they are likely to use it to the serious prejudice of the public security and welfare. It is not sufficient to "say that the men elected by popular suffrage will not be better, or even that they will not be as good, as those now "chosen by the Government. It is desirable that the power of choosing their own rulers should be given to the people, "irrespectively of the question whether the rulers they elect will be as good as, or better than, those now chosen for "them. Such a power is in itself an advantage of the greatest value apart from all consideration of the degree in "which it contributes, or is prejudicial, to good government. It is valuable chiefly because it gives an interest in public "affairs to the many who would otherwise have none; because it gives elevation and self-respect to the character, "cultivation and enlargement to the mind. This being considered, it will be seen that the principal objections which "have been raised to the measure are of less importance than might at first sight appear. One of these objections is "that the inhabitants of municipalities have no public spirit. But this is one of the strongest reasons for giving them "the elective franchise, which is the best expedient for supplying the want. And it may be remarked that besides "supplying this want the measure would not improbably go further and diminish or put an end to one great subject for "complaint as regards our municipalities, that their native members take no part and no interest in the management of "them. It seems quite possible that men charged by their fellow-citizens with an important trust and no longer "dependent upon the Government—the will of whose officials they dare not now dispute—will be much more inclined "than they are at present to take their share in the conduct of local affairs. Another objection which has been "insisted upon is that the voters will elect members who will endeavour to reduce taxation. But that tax-payers "should not be taxed without their own consent, so far from being an objection to representative institutions, has always "been considered their greatest advantage. Of course tax-payers may unavoidably abuse the powers so given to them "in such a manner as to be disastrous to the general interests; and in that case they are not fit to be entrusted with "a franchise. But it must be remembered that government with the consent of the people is better (other things "being equal) than government without it; and that to obtain the consent of the people to administrative acts is "worth some sacrifice of administrative efficiency. Nor do I think that in the present case there is any reason to "anticipate that any considerable evil will, in this respect, result from the change. I believe that the elective "members will neither have the power nor the inclination to reduce the expenditure of municipalities much below what "is desirable. In my own opinion indeed there is—and must be in the nature of things—a tendency in municipalities "as at present constituted to extravagance at the cost of the people; and I should view not with regret but with "satisfaction the measures of self-protection which the change would render possible for the tax-payers, and which "I do not believe they would (if they could) abuse." (16) Mr. Sim, Member of Council, recorded the following minute against the measure:—"When Act III of 1871 (Madras) was passed, it was—as indeed it has always been—the desire "and intention of the Government to introduce the elective principle, and section 9 of that law expressly provides for "the appointment of a certain number of the commissioners by election by the rate-payers. The advantages of the "principle are sufficiently obvious; the only question is whether the time has arrived for introducing it, whether "municipal institutions are yet fixed on a sufficiently secure basis, whether the rate-payers generally appreciate their "advantages sufficiently, whether the people themselves understand and value the privilege of electing their own "representatives and would exercise it judiciously. I am constrained to answer these questions in the negative, except "as regards Madras and Europeanised towns like Ootacamund. Much as our municipal commissioners have done, an "enormous deal remains to be accomplished before the advantages of municipal administration are patent to all "classes, and earn for them the appreciation they merit and must acquire before we can safely entrust them to "popular management. An increasing number of our people are becoming alive to the benefits these institutions are "conferring on the country, but the majority of the rate-payers are still blind to their advantages, and I apprehend that "they would choose as commissioners men generally hostile—I feel sure that, as a rule, their nominees would not be "better men than those now selected by the Government. I doubt whether they would be as good. In the case of the "commissioners for the care of religious endowments we have had positive proof of the very little regard the people "have for the privilege of election. If our reports are true, not a single election has taken place during the ten years "that the Endowment Act has been in operation. Under these circumstances, I think it would be unwise to expose "municipal institutions while yet in their infancy to the uncertainties and dangers of popular control until the people "learn to appreciate them as they deserve, and are therefore fit to be entrusted with their management. I think it "would be prudent to await the result in Madras, where the experiment will be tried under the most favorable circum-"stances, especially as the concession, if once made, cannot be withdrawn, and our means of preventing mischief under "the Act are defective and could not be exercised without great unpopularity and dissatisfaction. There is no movement "among our rate-payers generally for the change, and to force it on them, while indifferent and unfitted to exercise "the privilege properly, will be to incur risk without counterbalancing advantages." (17) The Madras Committee on local self-government of 1883 have lately remarked of the elective system as follows:—"It is impossible to say that "any definite or appreciable advantage has as yet been reaped from its introduction, while in at least one case (Salem), "the reports show that it was intimately connected with one of the most serious and disgraceful riots which have "occurred in this Presidency during a long series of years. We do not, however, desire to draw any wide conclusion "from a single instance." The Government, after full discussion, agreed to try the experiment as regards half the commissioners in ten selected towns, though, in fact, the elections did not come off till some years later, and the experience gained of the actual working of the system is still but small. (18) *Madras Act VII of 1878.*—It was

has hitherto been 'ex-officio' president for all towns within the district under his charge. As a rule however the working executive officer of every municipality has been the vice-president. He used to be one of the commissioners, and to be either elected by the commissioners where Government had granted the right, or

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mentioned above that by the Act of 1871, police charges were withdrawn from the towns; this was as a set-off against the new charges then made, and to facilitate the passing of the Bill. The previous action had been in pursuance of a policy prescribed by the Government of India, that the "watch and ward" of a town should be a first charge on its rates. However in 1870 all police charges had been provincialized, and the Government of India raised no objection to the change. From 1871 to 1878 municipal police was a charge on provincial funds. After this the financial pressure was so great, partly owing to the Madras famine of 1876-8, that the Madras Government were obliged, though somewhat unwillingly, to go back to the policy of 1865. Madras Act VII of 1878 was accordingly passed making municipalities liable for 75 per cent. of police charges. In practice the Government only levied 60 per cent. In 1880-81 the municipal contribution for police was Rupees 1,36,882, being 10·12 per cent. of the total municipal expenditure Rupees 13,52,354. (19) This state of things lasted for three years. In October 1881 however the Governor-General in Council gave it as his opinion that the municipalities might be relieved of the charges for police on the ground that it was a department "over which they had no control, and in the efficient and economical expenditure of which they had but little direct interest and no immediate responsibility." The Government of India however considered that an equivalent burthen of expenditure on education, medical charity and public works of local interest might be transferred to the municipalities together with such control over the details of expenditure as might be deemed practically expedient. The Government of Madras on 9th June 1882 resolved to waive its claim for the contribution for police, which was estimated to amount to Rupees 1,44,860 in 1882-83 but without, for the present, imposing any counterbalancing charges, the intention being that the funds thus set free should be devoted mainly to the development of education in the towns. Thus the principle asserted in 1865 and 1878 was, at least for the present, abandoned. (20) *Committee of* 1883 *on Local Government.*—In June 1882 a committee was appointed by Government to consider and report on the condition of local self-government in Madras, and on the proposals made by the Government of India for its extension. The committee submitted their report in December 1882, and the Government passed orders on it. The proposals made by the committee in regard to municipalities were as follows:—(*a*) That the number of municipalities should be largely increased in the Presidency. The Government decided that, as a general rule, every town of 10,000 inhabitants and upwards, being the head-quarters of a revenue officer of not lower grade than a deputy tahsildar, should be constituted a municipality. (*b*) That the selection of the vice-president, by election from the Municipal body should be adopted in a still larger number of towns than heretofore. Government directed that it should continue to be the rule that municipalities should always be allowed to elect their vice-presidents should they desire to do so. (*c*) That the executive powers of the chairman should be enlarged and his position improved. Government concurred with the committee in the opinion that the vice-president, or chairman as he is now called, should, as a rule, be invested with executive power and should exercise subject to certain restrictions, the entire patronage heretofore appertaining to the office of president. (*d*) That the elective system in the choice of councillors should be extended to a further number of the corporations. As regards this proposal, Government sanctioned the introduction of the system into all towns with a population of 25,000 and upwards, and stated that they would be prepared to concede the privilege to towns having less than 25,000 inhabitants on due cause being shown. (*e*) That the proportion of elected to nominated councillors should be increased in those towns to which the elective principle is applied. Government approved of the committee's proposal to adopt three-fourths as the proportion to be elected by the constituency. They also approved of the increase in the number of councillors suggested by the committee, viz., towns with a population under 20,000—12 to 16 councillors; of 20,000 to 30,000—14 to 18 councillors; 30,000 to 40,000—16 to 20 councillors; 40,000 to 50,000—18 to 22 councillors; above 50,000—20 to 24 councillors. (*f*) That the Act and rules should be so altered as to admit of election by wards, and that the franchise should be conferred not only on the payers of house and land rates, but also on the payers of profession tax and on persons possessed of other superior property and educational qualifications. The committee's suggestions in regard to the system of election and the rules proposed by them met with the general approval of Government. (*g*) That a larger share of the educational charges (all in fact up to the middle school standard) should be transferred to the municipalities, and, with the charges, the general control of and responsibility for such education. Government decided that all charges for middle and primary education would in future be borne by the municipalities concerned, and approved of the arrangements suggested by the committee to give effect to this proposal. (*h*) That the duties and responsibilities of town councils in regard to each of the great heads of municipal service should be better defined than at present, and that Government should reserve to itself, by law, greater powers of control and correction, to be enforced should occasion arise. These recommendations had the general approval of Government. (*i*) That the control of pound funds within municipal limits and the whole of their surplus receipts should be made over to the towns concerned. But as regards this proposal, in consequence of certain arrangements made for the management of the Sydapett Farm and the Agricultural College, the Government did not think it desirable to effect any alteration in the existing system. (*k*) That some alterations in minor matters, which experience had shown to be advisable, should be adopted. The alterations were considered in the preparation of the revised Act. (*l*) That in certain cases the experiment of a non-official president should be tried. The sections of the revised Act relating to an office of president were struck out by the Select Committee on the Bill, and there is no such office under the new Act. The Collector possesses otherwise powers of check. (21) *New Act of* 1884.—A new Act entitled the Madras District Municipalities Act (Madras Act No. IV of 1884) has now been passed and applied to several towns from the 1st April 1885. This enactment supersedes the Towns Improvement Act, 1871. The Acts of 1865 and 1871 were both styled Towns Improvement Acts, and the term "municipality" is now for the first time introduced into the title. The terms "council" and "councillor" have also been adopted in this Act in lieu of commission and commissioner. Under section 4 (2) the Government can withdraw the Act from municipalities which have become reduced in population and importance by famine, pestilence, floods or other calamities and thus become more fitted for the lighter taxation and less onerous duties of unions under local boards. Section 8 declares that the municipal council shall consist of not less than twelve persons. The Act of 1871 has been followed in making the revenue officer in charge of the division of the district in which any municipality is situated a councillor 'ex-officio.' All the other councillors may be appointed by Government, or, with the permission of Government, any proportion not exceeding three-fourths of them may be elected by the tax-payers, but not more than one-fourth of the whole number of such other councillors may be salaried officers of Government unless they have been elected as councillors by the tax-payers. Each council will have a chairman who may be either appointed by Government or, with the permission of Government, elected by the councillors from among their own number. He will be the executive officer of the council answering to the former vice-president, and will be responsible for carrying out all the purposes of the Act. The Government have the power under section 19 to remove a chairman or municipal councillor at any time. To prevent inconvenience, a vacancy by death or otherwise in the office of chairman is to be filled up by the revenue officer in charge of the division. Provision has also been made against any possible neglect or default on the part of the chairman in carrying out a resolution of the council by giving the Collector of the district authority to assume the execution of such resolution. The Collector can also exercise control in the event of any municipal council adopting illegal measures likely to endanger the public peace or to provide for default on the part of a council in performing any duty imposed on it by the Act as well as to secure quick and energetic action in cases of emergency. The position of Government servants lent to municipal councils has been clearly defined, and the position of municipal servants has been improved. The only new tax authorized is the water-tax to be levied at the rate of 4 per cent. on the annual rent-value of houses and

appointed by Government on the recommendation of the president. The privilege has not been refused to any town which has asked for it, though in some cases the commissioners who possessed the right have neglected to use it, and the Government have then themselves filled up the appointments. Until recently it has been the practice for the towns empowered to elect their own vice-presidents to choose officials for the post. But since the elaboration of Lord Ripon's scheme of local self-government the tendency has been to introduce the non-official element. Of the 47 vice-presidents at the present date only 23 are officials, the rest being non-officials; while in 1882 as many as 38 were officials. In more than one town, where there was a non-official vice-president, the commissioners have asked an officer of Government to accept the post of honorary secretary to the board, and in that capacity to

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lands and applicable only to the purposes of water-supply by means of works of a more or less permanent character. (22) *Extensions of municipal system.*—The numerical extension of the municipal system since the passing of the Act of 1871 has not been considerable. Prior to the passing of the Act there were 44 municipalities in existence. There are now only 47. Cumbum, Gooty, and Palcondah in the Teloogoo country, have been abolished by the Government. Shreerungam, Erode, Caroor and Chidambaram in the Tamul country, and Ongole and Ankapully in the Teloogoo country, have taken their place. (23) In November 1875, the Government proposed a very large increase in the number of municipalities, mainly with a view to providing for the extension of primary education and the elements of sanitary reform throughout the Presidency. The principle then enunciated was that "all places of 5,000 inhabitants and upwards should be constituted towns, when special cause is not shown to the contrary by the local officers or by the inhabitants," and it was "intended in the majority of cases to restrict the town limits to the smallest practicable compass with a view to obviating the necessity or making them liable for the maintenance of roads." As there were then about 130 towns with over 5,000 inhabitants which had not been formed into municipalities, the proposals of Government would, if carried out, have resulted in a very large extension of the municipal system; but the changes were of so sweeping and radical a character and were accompanied with projects for so great an increase of taxation both in town and in country that almost universal opposition was excited especially among the natives. In the face of the opinions then expressed throughout the country, it was impossible for Government to proceed with its proposals, and the occurrence of the famine at the close of 1876 required that all the resources both of Government and of the people should be concentrated on the struggle for existence which then ensued.

[2] LIST OF MOFUSSIL MUNICIPALITIES IN THE PRESIDENCY.

Name of district.	Name of municipality.	Population within municipal limits.
Anantapore	Anantapore ...	4,907
Bellary	Adony	22,441
	Bellary	53,460
Chingleput	Conjeeveram ...	37,275
Coimbatore	Coimbatore ...	38,967
	Erode	9,864
	Caroor	9,205
Cuddapah	Cuddapah	18,982
Ganjam	Berhampore ...	23,599
	Chicacole	16,355
Godavery	Cocanada	28,856
	Ellore	25,092
	Rajahmundry ...	24,555
Kistna	Goontoor	19,646
	Masulipatam ...	35,056
Kurnool	Kurnool	20,329
Madura	Dindigul	14,182
	Madura	73,807
Malabar	Calicut	57,085
	Cannanore	26,386
	Cochin	15,698
	Palghaut	36,339
	Tellicherry ...	26,410
Neilgherry	Coonoor	4,778
	Ootacamund ...	12,335

Name of district.	Name of municipality.	Population within municipal limits.
Nellore	Nellore	27,505
	Ongole	9,200
North Arcot	Vellore	37,491
	Wallajahpett ...	10,387
Salem	Salem	50,667
South Arcot	Chidambaram ...	19,837
	Cuddalore	43,545
South Canara	Mangalore	32,099
Tanjore	Combaconam ...	50,098
	Munnargoody ...	19,409
	Mayavaram ...	23,044
	Negapatam ...	53,855
	Tanjore	54,745
Tinnevelly	Palamcottah ...	17,964
	Tinnevelly ..	23,221
	Tuticorin	16,281
Trichinopoly	Shreerungam ...	19,773
	Trichinopoly ...	84,449
Vizagapatam	Ankapully ...	13,341
	Bimlipatam ...	8,582
	Vizagapatam ...	30,291
	Vizianagram ...	22,577
		1,323,970

[3] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN THE MAP SHEWING THE 47 MUNICIPALITIES OF THE PRESIDENCY*.—Adóni, Anakápalle, Anantapur, Arcot North, Arcot South, Bellary, Berhampore, Bimlipatam, Calicut, Canara South, Cannanore, Cauvery, Chicacole, Chidambaram, Chingleput, Cocanada, Cochin, Coimbatore, Coleroon, Conjeeveram, Coonoor, Cuddalore, Cuddapah, Dindigul, Ellore, Erode, Ganjam, Godávari, Gundlakamma, Guntúr, Karúr, Kistna, Kumbakónam, Kurnool, Lángulya, Madras, Madura, Malabar, Mangalore, Mannárgudi, Máyavaram, Masulipatam, Negapatam, Nellore, Nílgiri, Ongole, Ootacamund, Palamcottah, Pálghat, Pálár, Pennér, Periyár, Ponáni, Ponniár, Rajahmundry, Rushikulya, Salem, Srírangam, Támbraparni, Tanjore, Tellicherry, Tinnevelly, Travancore, Trichinopoly, Tuticorin, Vaigai, Vamsadhára, Vellár, Vellore, Vizagapatam, Vizianagram, Wálajápet.

[4] NUMBER OF MUNICIPALITIES OF DIFFERENT SIZES.

Under 10,000 inhabitants	6
10,000 to 20,000 do.	13
20,000 to 30,000 do.	12
30,000 to 40,000 do.	7
40,000 to 50,000 do.	1
50,000 to 60,000 inhabitants	6
Above 60,000 do.	2
	47

undertake the greater part of the scriptory and detail work which is usually conducted by the vice-president. The duties of the office, which are sometimes very onerous, are in most cases performed gratuitously. Government have forbidden their covenanted officers to receive remuneration for the performance of this or other duties of a quasi-public character, and they have hitherto refused to sanction the payment of a salary to non-official vice-presidents on the ground of economy. Where however the commissioners have desired to grant a carriage allowance, Government have sanctioned its payment, except to covenanted civilians. A carriage allowance, varying from Rupees 20 to Rupees 60 per month, is now paid to the vice-presidents of about twelve municipalities.

298. Under Madras Act IV of 1884 the Collector has no longer any direct connection with the municipal councils in his district; but he has ample powers conferred on him to exercise external control. The duties performed by the president and vice-president under the former Act have now been imposed on a chairman. He will be the executive officer of the municipality, and as such carry out the resolutions of the municipal council. He can authorize a municipal councillor to exercise any of the powers conferred on him by the Act. In him is vested the appointment and dismissal, subject to such control as may from time to time be prescribed by the Governor in Council, of all purely municipal servants, but the number of such servants and the salaries to be paid them must be fixed by the councillors at a meeting. He is one of the councillors, and is elected by them if that privilege be granted, or otherwise appointed by the Governor in Council. The privilege of electing a chairman has now been extended to 40 towns. In any municipality where the office of chairman becomes vacant by the removal, death or resignation of a chairman, the revenue officer in charge of the division of the district wherein such municipality is situated assumes charge of the office until a successor is duly appointed.

299. The board of councillors consists of one ex-officio member and a certain number of ordinary members. The ex-officio member is the revenue officer in charge of the division of the district in which the town is situated. The ordinary members consist of not less than eleven persons, either appointed by Government or elected by the rate-payers. They continue in office for three years and then cease to be members, but are eligible for re-appointment. They may be removed by Government for misconduct or neglect of duty. Any officer of Government who holds a salaried office in the district in which the town is situated may be appointed a municipal councillor, provided that not more than one-fourth of the board shall be salaried officers of Government. By virtue of this power, it has been usual to appoint the chief local representatives of the Educational, Medical, and Public Works Departments, and the boards thus have had the advantage, free of cost, of the advice and assistance of the professional officers of Government on all technical questions which come before them from time to time.[5] A section of the new Act however further provides that the Civil Surgeon of the district, the Executive Engineer of the division and the Inspector of Schools of the circle when such officer is not a municipal councillor, may, with the previous sanction of the chairman, attend any meeting of the municipal council and address the council on any matter affecting respectively sanitation, public works and public instruction. The qualifi-

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[5] EXTRACT FROM REPORT OF MADRAS COMMITTEE ON LOCAL SELF-GOVERNMENT (1883).—"It must never be forgotten, in dealing with any local agglomeration of people in India, that, whatever the ties of locality may be, the various "sections of the population are separated as widely as the poles from each other by differences of race and of "language, of religion, of caste and of custom, of prejudice and tradition; that there is not at present any wide platform "of common interest on which they will or can meet and sink their differences; that they have not, in fact, any true "patriotism or national feeling such as binds together the units of western nations. It follows that in India it is the "special care and duty of the ruling power to protect minorities, and this protection is especially needed in the many "details of every-day life, the sum of which form the subject of local and municipal administration. In dealing with the "rules for elections, we have, in paragraph 118 of this chapter, made an important proposal with this object in view "by suggesting that election should be by wards, instead of by the whole body of electors; but we are of opinion that "this will not prove sufficient to secure the adequate representation of minorities, which can only be done by placing "in the hands of a perfectly impartial authority like Government a certain number of nominations to every board. "We also consider it necessary, in the interests of the boards themselves, either that there should be a considerable "number of ex-officio members, such as the district medical officer, the chief local educational officer, &c., on each board, "or that Government should be able to appoint such officers by nomination. In Northern India all the professional "officers of Government are usually ex-officio members. In this Presidency the alternative of appointment by nomination has hitherto been adopted, and we recommend its continuance as more elastic and therefore better adapted to "the very diverse circumstances of the up-country municipalities."

cations of councillors, whether nominated or elected, and also those of the electors, are prescribed by Government in rules having the force of law.

300. The number of councillors must by law be not less than twelve including the ex-officio member. In practice however it is much larger. In April 1879, Government laid down a scale to regulate the number of commissioners in towns of various sizes where the elective system had been introduced. In April 1883, a fresh scale was laid down as shown below [6] for adoption in all towns on the recommendation of the Madras Committee on Local Self-Government. This has raised the average number of councillors in each municipality to 16, the total number having been at the close of the year 1883-84, 754. On the introduction of the present Act in 1871 the total number was 606 for 46 towns, being an average of 13·2, or 3 per town less than that now prevailing.[7]

301. The law provided till recently that the number of officials must not exceed the number of non-officials in any municipality. In practice, however, it has been usual to appoint considerably more than one-half of each board from among the non-official community. Thus, in 1871-72, of the 605 commissioners only 243, or 42·9 per cent., were officials, and the proportion is still almost the same, viz., 314 out of 754, or a percentage of 42. The number of Europeans and East Indians on the boards is 248, or 31·5 per cent. of the whole number. They are for the most part Government officials, except in the hill stations of Ootacamund and Coonoor and in the large towns on the coast, where there is a considerable mercantile community of European extraction. Under the new Act the number of officials on any municipal board will not exceed one-fourth of the total number including the ex-officio member.

302. The elective system has recently been introduced into all towns having a population of 25,000 and upwards. Some smaller towns also have been granted the privilege at the special request of the councillors. The system has been in force in twelve towns and elections were held for the first time in nine towns in 1883-84; several more towns will be added to the list as vacancies occur. The number of elected councillors in 1883-84 has been 122 out of a total of 754, but as vacancies occur and the privilege is exercised on a wider scale, this number will increase until it eventually reaches three-fourths of the councillors of towns where the system is in force. The rules now in force for conducting elections are shown at foot,[8] but

[6] SCALE FOR NUMBER OF COUNCILLORS.

Class of towns according to population.	Minimum.	Maximum.
Under 20,000	12	16
20,000 to 30,000	14	18
30,000 to 40,000	16	20
40,000 to 50,000	18	22
Above 50,000	20	24

[7] EXTRACT FROM REPORT OF MADRAS COMMITTEE ON LOCAL SELF-GOVERNMENT (1883).—"We think that this increase "in the number of commissioners is advisable for several reasons: (a) because it gives a larger number of the townspeople "a direct part in the management of their own affairs, with all the indirect political advantages resulting therefrom; (b) "because it ensures to the Board a larger and more varied knowledge of local wants and feeling; (c) because, by "placing more nominations at the disposal of Government, it enables it to afford the Boards, free of cost, the advice "and assistance of its professional officers in the several departments, such as Public Works, Education, Medical, &c., and "also to provide, if need be, for the representation of minorities if denied by the electors."

[8] ELECTION RULES.—(1) *Electoral divisions not permitted.*—For electoral purposes the town may not be divided into sections, but each elector shall be entitled to vote for each commissioner, and each commissioner elected shall be deemed a representative of the whole body of electors, and not of any section of the community or division of the town. This rule shall not be held to prevent the president from appointing more than one place for recording votes, should he consider more than one place necessary for the convenience of the electors. (2) *Number of official and non-official commissioners to be elected.*—The commission, exclusive of ex-officio members, shall consist of not more than twenty members, of whom one-half shall be elected. The Governor in Council shall fix the number of elective commissioners for each town, and may, from time to time, vary the number. When any vacancy shall occur, it shall be the duty of the president to report the fact to Government within thirty days of the occurrence of such vacancy. In the case of an official vacancy a new member should be nominated if the maximum number of the elective members be complete. In the case of an elective vacancy, the president should at once proceed to the election of a new member in accordance with the rules in force for the election of commissioners. (3) *Qualification of electors.*—Every rate-payer, i.e., a payer of rates on houses or lands situate within the limits of the municipality, the same being in his or her bonâ fide possession as owner or occupier, shall be entitled to vote, provided he or she is twenty-one years of age and has paid in the year preceding that in which he votes a house or land rate, or aggregate house and land rates, amounting to Rupees $3\frac{3}{4}$ if the house and land rates be fixed at $7\frac{1}{2}$ per cent. per annum, or proportionately

they are to be revised. It is to be noted that the new Act allows of election by wards.[9]

lower if these rates be levied at a lower percentage on rental. (4) *Qualification of elective commissioners.*—Each owner of land or buildings situate within municipal limits, or each person carrying on business therein, or residing within municipal limits, shall be eligible for election, provided he has attained the age of twenty-five years and pays a house or land rate, or aggregate house and land rate, for house or land situate within municipal limits, amounting to not less than Rupees 7½ if the rate be fixed at 7½ per cent., or proportionately lower if the rate be fixed at a lower percentage; or pays a rental for house or land, or for houses and lands, amounting to not less than Rupees 100 per annum. Provided further that no person of unsound mind, or person who has been convicted of an offence punishable under Chapter XVII of the Criminal Procedure Code, or who shall have applied to the Insolvent Court for relief as an insolvent debtor, or who shall have been removed from office under Section 7 or 9 of Act III of 1871, shall be eligible for election. (5) *Disqualification after election.*—Any elected commissioner being guilty of misconduct or neglect of duty, or who may have applied for relief under the Insolvent Debtors' Act as an insolvent, may be removed by Government from the commission. (6) *Time of election.*—The president shall appoint and notify the day of the election and the hours during which votes may be given, provided always that such day shall not be less than thirty days or more than sixty days from the date on which the notification shall have appeared in the local gazette, and that the hours for voting shall not be fixed earlier than 7 A.M. or later than 5 P.M. The hours shall be duly notified in the local gazette and at the municipal office. (7) *Place of election.*—The president shall fix the place or places at which the election shall be held, provided the place elected be not the Collector's court or the office of the municipal commissioners. (8) *Polling officers.*—The president shall appoint such and as many polling officers as he may consider necessary, and may fix a reasonable remuneration for their services. (9) *List of voters.*—A list of voters shall be prepared by the president and published in the local gazette at least thirty days before the date fixed for the election. It shall be the duty of the president to revise the list of voters from time to time. (10) *Challenging the right of a voter to vote.*—Any one claiming to vote or objecting to right of any voter named in this list to vote shall present his petition or objection in writing to the president on or before the seventeenth day preceding that fixed for the election. The president's decision shall be final. (11) *Objections on the day of election.*—On the day of election no objection to any intending voter shall be admitted, except in respect of the identity of the voter, and, if any such objection be made, the polling officer shall transmit the name of the objector and a statement of the grounds of his objection to the president, and shall direct the objector to appear before the president within three days from the date of the election. The president's decision on the objection shall be final. (12) *Mode of voting.*— The voting shall be by voting papers, which shall be prepared by the president or vice-president of the municipal commission and distributed by him to the electors in such manner as he may think advisable. On these papers shall be printed the number of vacancies to be filled and the name or names of the candidates for election. The elector shall be instructed to score out the names of candidates for whom he does not vote, retaining the name or names of candidates for whom he votes. (13) *Number of candidates for whom an elector may vote.*—If there be but one vacancy, an elector may vote for one candidate only, but, if there be more than one vacancy, he may vote for one candidate to fill each vacancy. (14) *Polling.*—On the day and at the hour fixed by the president for the election the polling shall commence after the polling officers shall have read aloud the names of the candidates and the notification of election to be held. Each voter shall present himself to the polling officer, and, after stating that it is his intention to vote, shall answer any question put to him by such officer regarding his identity and the number of candidates whose names are retained in the voting paper, and then, provided no objection is admitted against him, place his voting paper in the ballot-box. (15) *Duties of polling officer.*—It shall be the duty of the polling officer to advise voters as to the proper course of procedure if asked, not otherwise; but he shall carefully abstain from inspecting voting papers or inquiring the name or names of the candidates for whom an elector is voting or acting in any way likely to influence his decision. He shall have a list of the electors, and shall enter therein, opposite the elector's name, the hour at which he voted, and shall then and there sign the entry. At the close of the poll he shall deliver, duly secured under his seal, this list together with the ballot-box to the president. He shall further remit to the president at the same time a list of objections to voters made to, or admitted by, him during the day. (16) *Attendance at the poll.*—A voter shall ordinarily attend in person at the polling place and himself deposit his voting paper in the ballot-box, but, if he be unable to attend, he shall apply to the president, not less than three days prior to the polling day, for permission to send his voting paper under seal to the polling officer on the day of polling, stating the reasons for seeking exemption from personal attendance. If the president see fit, he shall grant the permission sought and furnish the polling officer on or before the day of polling with the names of such privileged persons. (17) *Scrutiny of votes.*—On receipt of the ballot-box from the polling officer the president shall then and there open the box and count the votes, checking the same by the register of electors, and record the result under his signature. All objections shall, if possible, be forthwith inquired into and disposed of. (18) *Declaration of the poll.*—So soon as the objections made have been inquired into and disposed of, the president shall cause a notification to be drawn up under his signature, declaring the number of votes recorded for each candidate, and the names of the person or persons elected. This notification shall be posted at the municipal office and ultimately published in the district gazette. (19) *Destruction of voting papers.*—After the result of the poll is notified, the voting papers shall be destroyed in the presence of the president. (20) *Election how decided.*—Candidates for whom the greatest number of votes shall have been recorded shall be deemed elected. In the case of an equality of votes for any two or more candidates, the candidates concerned shall cast lots in the presence of the president, provided that if one candidate pay to the municipality a greater amount of taxes than the other, he shall be preferred, unless he elect to leave the matter to be decided by lot. (21) *When election shall take place.*—Elections shall take place as vacancies occur until the number of elected commissioners has reached the maximum number of elective commissioners fixed for the municipality. Thereafter vacancies shall be filled in the manner laid down in Rule 2. (22) *Nomination.*—Every candidate shall be nominated by at least two competent electors not less than fifteen days before the day fixed for the election. Nomination shall be by letter or petition to the president, which shall be signed by the candidate and his nominators. (23) *Publication of names of candidates.*—It shall be the duty of the president on the fourteenth day prior to the election to publish the names of the candidates and of their proposers and seconders. (24) *Failure of candidates for election.*—In the event of there being no candidate or an insufficient number of candidates for any vacancy or vacancies, the president may postpone the election for such time as he may deem necessary, provided that, if no candidate be forthcoming within three months from the date of the postponement, the vacancy shall be filled by a Government nominee. (25) The first election shall be held in September 1879, provided there is a vacancy or vacancies existing in the commission on the first of that month. It is not intended to disturb the existing personnel, except gradually as vacancies occur from termination of period of service, death, or resignation.

[9] EXTRACT FROM REPORT OF MADRAS COMMITTEE ON LOCAL SELF-GOVERNMENT (1883).—" We have quoted at " length the rules under which elections are now conducted. Two points stand out prominently as noteworthy in connec- " tion with them :—(i) The prohibition against electoral divisions of the town, or wards; (ii) The restriction of the " electoral franchise to only one class of tax-payers, viz., to those who pay house and land rates. Both these restrictions " are held to arise from the wording of Section 9 of the Act—' election by the rate-payers,' i.e., by those who pay " rates on houses and lands. We consider that both the restrictions should be removed by striking out the words " 'by the rate-payers', where they occur (twice) in this section and by adding after the words ' subject to such " rules and orders as may be passed by the Government ' the words 'in regard to the qualifications of electors and " candidates, the formation of electoral wards, and all other matters relating to the elections.' We have already " spoken of the necessity of endeavouring to protect and secure the representation of important minorities. We have " considered the suggestion of the Government of India that selection by castes or occupations might be tried, but

303. SOURCES OF REVENUE.—The sources of municipal revenue are as shown at foot.[10] The collections under the imperial license-tax are shown in the municipal accounts, as the tax is generally though not always collected by municipal agency as a matter of convenience. It is however an imperial tax and is not noticed here.

304. TAX ON BUILDINGS, &c.—The tax on buildings and lands is assessed on the annual value calculated on the monthly or annual rent for which they might reasonably be expected to let, and must not exceed $7\frac{1}{2}$ per cent. on such value. The chairman however, has power to exempt any building, or land, the annual value of which is less than 6 rupees, if it be the sole ratable property of the owner, and no building or land ordinarily used as a place of public worship, or as a public choultry, hospital, or dispensary, or exclusively used for charitable purposes, or used as a lighthouse, public pier, wharf, jetty or burial or burning ground, is liable to any tax. In the case of lands unappropriated to any building or occupied by native huts, the chairman may, subject to the approval of the municipal council, impose the tax at an annual rate not exceeding 4 annas for every 80 square yards instead of at $7\frac{1}{2}$ per cent. on the rent value. Proportionate remission is also given on any building which has been vacant for sixty or more consecutive days in any year, and exemptions are freely made on account of the poverty of individuals. It has always been one of the most productive and least unpopular of the municipal taxes. It was at first imposed at very low

"we are unanimous in thinking it undesirable to accentuate caste feeling and sectarian animosities or to encourage "members of town boards to believe that they are selected to represent and maintain the religious or caste interests of "their constituents rather than to devote themselves to working out the legitimate purposes of the Act. It is true that "the different sections of the population live in separate quarters or villages according to their race or caste. There is "usually the Mussalman and the Pariah quarter, the Brahmin (or Agraharam) and the Shoodra quarter. The traders "congregate in one part of the town, the weavers in another, the agriculturists in a third, and so forth, and the commis-"sioners elected for such quarters will pretty surely belong to the same caste or interest as that which prevails "therein, and thus we hope to secure the presence, on the board of representatives, not only of the several parts of the "town (in itself a most important object), but also of each of the more important races and castes. Such men will "however represent their caste or race only incidentally, not primarily, and will, we hope, be actuated in the perform-"ance of their public duties by feelings widely different from those of men specially chosen by the castes and as castemen "to represent the interests of their castes. With reference to the qualifications of electors, we think that the present "franchise is too narrow. The following statement shows the number of voters at the last election in each town and "the percentage thereof to the whole population:—

—	Population.	Voters.	Per cent.
Bellary	53,460	369	·74
Trichinopoly	84,449	279	·33
Tanjore	54,745	432	·79
Negapatam	53,855	1,147	2·13
Combaconam	50,098	520	1·03
Madura	73,807	1,250	1·69
Salem	50,667	790	1·56
Calicut	57,085	865	1·51
Tinnevelly	23,221	170	·73
Total ...	501,387	5,822	...
	Average percentage ...		1·16

"It will be observed that the average percentage is only 1·16. We would extend the franchise so as to include, "not only all who pay direct taxes above a certain amount, but also persons who, from the receipt of considerable "pensions or salaries or from the payment of a high rental, may be presumed to be persons of respectability and "property, and as such entitled to a voice in the administration of municipal affairs. We also think that the claims "of superior education should be so far recognized as to give a vote to the graduates of all recognized Universities. "We would also suggest that Rule 16 be cancelled, as we consider that the English practice, which requires personal "attendance at the poll, should be followed also in this country."

[10] SOURCES OF REVENUE.

Taxation.

(i) A yearly tax on arts, professions, trades, and callings and on offices and appointments;
(ii) A yearly tax on lands and buildings not exceeding $7\frac{1}{2}$ per cent. on the annual value of such lands and buildings;
(iii) A yearly water-tax on lands and buildings not exceeding 4 per cent. on their annual value;
(iv) A half-yearly tax on vehicles with springs, palanquins and animals;
(v) A half-yearly tax on carts and other vehicles without springs;
(vi) Tolls on vehicles and animals entering the municipal limits;
(vii) Licenses to carry on offensive or dangerous trades.

Other sources.

(viii) Fees or rents for the use of municipal gardens, choultries, markets, slaughter-houses, cart-stands, &c.;
(ix) Fines and forfeitures;
(x) Payments for municipal services rendered to private persons and other miscellaneous items;
(xi) Grants-in-aid from provincial or local funds.

rates, generally from 3 to 5 per cent. on the rent value, but has gradually been raised until, at present, it is levied in many cases at the maximum rate, and, on the average, at not less than 6 per cent. The method of assessment is not very satisfactory. A considerable portion of the native inhabitants of all Indian towns, and that portion generally the wealthiest, live in their own houses from generation to generation, and consequently there are but few data on which to calculate the ordinary rent value of the properties. This value was fixed at a low figure in the earlier assessments, but has been gradually revised and enhanced under the financial pressure caused at first by the abolition of the tax on arts and trades in 1874, and afterwards by the imposition of the police tax in 1879. The same pressure also caused the commissioners to turn their attention to developing the revenue to be derived from the tax on land, which was, until lately, levied in only a few places, and then generally on a very inadequate valuation. This circumstance, together with the two causes already mentioned as affecting the house-tax, viz., the increase in the recorded rent value of the properties and the gradual enhancement of the percentage at which the rate was levied, has led to a large increase in the proceeds of these taxes. In 1871-72 the revenue from these sources was Rupees 2,25,000. It is now Rupees 4,48,460, and forms 44·9 per cent. of the entire receipts from municipal taxation, or 31·8 per cent. of the total municipal income. It is believed that the tax is capable of being made still more productive by an extension of the processes above described, and this without undue hardship to the people and without overstepping the limits intended by the framers of the Act. The tax is now levied in every municipality, and its incidence is 5 annas and 5 pies per head of the population. The water-tax on lands and buildings is a tax introduced by the new Act. It has not as yet been levied in any town, but considering that the water-supply of most towns is very indifferent and that its improvement sooner or later is a matter of necessity, it is probable that before long municipal councillors will take advantage of the additional taxation.

305. In the Act no distinction is made between private property and lands or houses the property of Government. Until quite recently all were on a par, the officer in charge of the property appealing, if necessary, against the assessments made by the commissioners. It does not appear that this state of things led to any abuses, at least in this Presidency, but the Government of India thought it best to assimilate the law on the subject to that prevailing in England, and accordingly it was enacted (India Act No. XI of 1881) that, notwithstanding anything to the contrary contained in any Act for the time being in force, the Governor-General in Council might, by an order in writing, prohibit the levy, by a municipal committee, of any specified tax payable by the Secretary of State for India in Council; but that, where such order was made, the Secretary of State for India in Council should pay to the municipality, in lieu of such tax, such sum as an officer appointed from time to time in that behalf by the local Government might determine to be fair and reasonable. This change in the law has not, however, as yet produced any practical effect in this Presidency, the working of the ordinary municipal law having been found to be fair and satisfactory, and Government having therefore found it unnecessary to utilize the powers given to it by the Act of 1881.

306. By section 24 of the Cantonment Act, No. III of 1880, the Governor-General in Council may exempt all Government buildings or property situated within a military cantonment from all municipal taxes, and this power has been exercised by the Government of India. The municipalities can claim no compensation on account of such exemptions.

307. Tax on Trades, &c.—A tax is leviable (section 53) from every person who, in the town, exercises any of the arts, professions, trades, or callings specified in schedule A of the Act. Such persons are arranged in eight classes, and pay annually the amounts shown below [11] for licenses to carry on their respective occupations.

[11] Classes for the Profession Tax.

	RS.		RS.
Class I	100	Class V	6
" II	50	" VI	3
" III	25	" VII	2
" IV	12	" VIII	1

The schedules are very comprehensive and include all kinds of arts, professions, trades, and callings. Every person holding any office or appointment, public or private, or employed in any capacity with a salary of Rupees 30 per mensem and upwards, is liable to the tax, while the lowest class goes so far as to take in "every retail dealer, manufacturer, artizan, trader, or keeper of a shop or stall not included in any other class, or money-changer, and every pedlar, hawker, or itinerant dealer." Though this tax is the direct successor of the old imperial moturpha, it has been unpopular, and considerations similar to those which led to the abolition of imperial income-tax induced this Government also to direct that the trades tax should be held in abeyance from the beginning of 1874-75. The suspension was at first made absolute with a view to enquiry whether other taxation could not be made to suffice for the wants of the municipalities. It soon however became apparent that this policy could not be continued. The imposition of the tax on the five highest classes was permitted, even in the year 1874-75, in the six towns of Gooty, Cochin, Mangalore, Negapatam, Tuticorin, and Vizagapatam. In each of the following years the tax was reimposed on an ever-increasing number of towns, and was also extended to the lower classes in the schedule until, at present, it is in force in 37 towns out of the whole number of 47. The imposition of the imperial license-tax in 1878, which has to be paid by almost the same persons who pay the municipal tax, has however increased its unpopularity and the difficulty of assessing it with strictness. It has in consequence not regained the position, as a productive tax, which it held in 1872-73, before its abolition was decided upon. In that year its levy in 37 municipalities produced Rupees 1,81,000. In 1883-84 it was in force in 37 towns, and realized only Rupees 1,40,582. The average incidence of the tax per head of the population in these towns was 2 annas and 1 pie. The financial needs of the municipalities will shortly compel its introduction into the remaining towns and its extension to the lower classes which are now exempt in some towns. Should the imperial license-tax be hereafter abolished, it is probable that this tax will again become as productive as formerly under the influence of processes of revision similar to those already alluded to in regard to the house-tax.

308. Under India Act XI of 1881 power is reserved to the Governor-General in Council to exempt military officers resident in a municipality from municipal taxation, the Secretary of State however being liable in such cases for the payment of the sums which would have been due. By notification of the Government of India in the Home Department, in 1881, under section 24 of Act III of 1880 (The Cantonment Act, 1880), all persons on duty in a cantonment and exclusively in military employ or belonging to a department directly attached to the army, or to the Public Works Department, Military Branch, being persons subject to the Army Discipline and Regulation Act, 1879, or the Indian Articles of War, are exempt from municipal taxes on salaries, professions, &c.; horses, &c., kept for military duty; and from tolls on animals and vehicles kept for such duty. Compensation has however always been paid from imperial funds in these cases.

309. Taxes on vehicles with springs, palanquins and animals and on carts and other vehicles without springs, &c.—Under section 77 a tax not exceeding the rates specified in schedule B of the Act may be imposed on "every carriage with springs, palanquin, horse, ass, dog, bull, bullock, male buffalo, camel, and elephant kept within the town and shall be payable in advance" every half-year. The rates vary from Rupees 12 per half-year on an elephant to 4 annas per half-year on an ass or dog, and are very comprehensive. A carriage on springs drawn by a single pony was not mentioned in the schedule attached to the old Act, and pushpushes and palanquins were also exempt from municipal taxation. These and similiar defects have been remedied by the new Act and a careful revision of the old schedule. Carriages, &c., the property of the corporation or of Government and vehicles kept by '*bonâ fide*' dealers for sale and not used for any other purpose are exempt, as are also carriages, &c., kept in the town for not more than thirty days in any half-year, and the chairman may, subject to the approval of the municipal council, compound with keepers of livery stables and hackney carriages as regards the amount of tax payable by them. Carts and other wheeled vehicles without springs may also be declared liable to taxation (section 85). They should in that

case be registered, for which a fee not exceeding Rupees 2 per cart per half-year may be levied. Carriages, carts, and animals which have paid the above taxes are exempt from the payment of municipal tolls. These taxes are in force in all municipalities (except Palghaut) and are fairly productive and progressive. They realized Rupees 72,000 in 1871-72 and Rupees 1,15,228 in 1883-84. The latter figure gives an incidence per head of the population affected by it of 1 anna and 5 pies.

310. TOLLS.—Tolls not exceeding the rates specified in schedule D annexed to the Act may be levied (sections 91–96) upon all carriages, carts, and animals entering the municipal limits; but carriages, carts, and animals which have been licensed or registered by the chairman as also troops on the march, military and Government stores, military and police officers on duty and any person or property in their custody, and all vehicles belonging to the corporation are exempt. Not more than one payment of toll can be demanded on any animal or vehicle in any one period of twenty-four hours counted from sunrise to sunrise. The schedule includes all kinds of vehicles and beasts of burden, and the tolls vary from one rupee on an elephant to one anna on every horse under thirteen hands, buffalo, bull, bullock, cow or ass laden or ridden, and on a horse not laden nor ridden. This tax has been at all times the most popular form of municipal taxation, mainly on account of its indirect nature and on account of its being levied only on animals and vehicles entering and not leaving the town. In the earlier years of the past decade it was the most productive of all the municipal taxes, and in 1873-74 its levy in 42 towns realized Rupees 3,43,000, or 40·8 per cent. of the total income from taxation, viz., Rupees 8,41,000. It had, however, for some years been perceived that the tax was open to objection in so far as it fell, not on the town consumer, but on the general traffic of the country. Many attempts were made to remedy this. In Tinnevelly and some other places looplines were constructed by which through traffic might pass without entering the town and consequently untolled, but this device was not capable of general adoption, and accordingly in 1875-76 arrangements were made by which the proceeds of the municipal tolls should be divided between the local fund boards and the municipalities, the principle being that the local fund boards should receive the estimated amount of the tax levied on the through traffic, since on them devolved the maintenance of the through lines of communication, while the remainder of the tax went to the municipalities. This arrangement has been accepted by all parties as the best that can be made; but the productiveness of tolls as a source of municipal revenue has shown a marked falling off since 1873-74—a falling off which has been only partially counterbalanced by the increase in the rates which has been made in many towns since that time. In 1883-84 tolls were levied in 43 towns, and the income realized was Rupees 2,75,369, or 27·6 per cent. of the total income from taxation, viz., Rupees 9,98,716. The average incidence of this taxation per head of the population affected by it was 3 annas and 5 pies.

311. No octroi or town duties are leviable in the mofussil municipalities in this Presidency, and in this respect the Madras system of municipal taxation is distinguished from the systems in force in all, or almost all, the other local Governments and Administrations in India.

312. OTHER SOURCES OF INCOME.—Under the superseded Act, premises used "for melting tallow, for boiling offal or blood, and as a soap-house, oil-boiling house, dyeing house, tannery, brick pottery or lime kiln, or other manufactory or place of business from which offensive or unwholesome smells arise, or as a yard or depôt for hay, straw, wood or coal," are required to be licensed by the councillors, who are authorized to charge for the licenses such annual fees as they may think proper, subject to the approval of the Governor in Council. The fees are generally small and imposed more with a view to limiting and controlling the exercise of dangerous and offensive trades than for the purpose of obtaining a revenue. Such fees in 1883-84 were levied in 45 towns and realized Rupees 19,077, or 3 pies per head of the municipal population affected. The present Act however has made the list much more elastic and comprehensive. The fees that will be charged for licenses will accordingly show a great improvement.

313. The Act forbids the slaughter of any animal for sale except in premises licensed or provided for that purpose by the councillors. It also forbids the opening of new markets without a license from the councillors, and it also authorizes the councillors to provide markets and slaughter-houses and to levy fees for their use. Another section contains similar provisions in regard to cart-stands. The fees levied in this way are not regarded as similar in their character to those noticed in the last section which are direct taxation, whereas the fees now under notice are more in the nature of rents for the use of premises provided by the councillors and thus approximate in their character to rents received for the use of gardens, choultries, bungalows, and so forth, which are all included in the same category. The receipts from these sources have shown a steady, though not rapid, increase, and it is believed that they are capable of further development to a very considerable extent. The total sum thus realized in 1883-84 was Rupees 97,395, or 1 anna and 2 pies per head of the population.

314. The receipts under the head of fines and forfeitures comprised till now the proceeds of magisterial fines for offences against the Municipal Act and bye-laws, which under the orders of Government are credited to municipal funds, and also fees payable on demand notices and on distress warrants. The revenue from these sources has more than doubled in the past ten years, having risen from Rupees 10,839 in 1873-74 to Rupees 22,922 in 1883-84. No fees will henceforth be levied on demand notices.

315. The more important items of receipt comprised under the head of miscellaneous are school fees (Rupees 33,428); payment for municipal services rendered to private individuals (Rupees 22,679), mainly for the scavenging of private premises; half the surplus of pounds within municipal limits (Rupees 5,882); endowments and donations for hospitals, dispensaries, and charitable institutions; sale proceeds of poudrette and sweepings, of avenue clippings, old materials, waste lands, &c., as also loans for municipal purposes. Loans have hitherto been taken in only a few municipalities, but it is probable that they will be more generally resorted to hereafter with a view to carrying out the schemes of drainage and water-supply, which many of the larger municipalities now regard as essential. The other items have steadily improved and are still capable of large expansion. This is especially the case with private scavenging, a service which has attained to something like a complete system only in a few towns (Ootacamund, Mangalore, Bellary, Adony and Rajahmundry), though some progress has also been made in other towns, such as Tanjore, Cocanada, Berhampore, Coonoor, Anantapore, &c. It is much appreciated and readily paid for by those classes whose females are gosha and, indeed, by all the more respectable people to whom a resort to the public latrines is naturally distasteful. Many of the hospitals and dispensaries have considerable endowments, but subscriptions have decreased since the municipalities undertook their support. The total receipts under all items of miscellaneous revenue amounted in 1883-84 to no less a sum than Rupees 1,53,999, or 10·9 per cent. of the whole municipal income.

316. The chief provincial grants are those made towards special objects, such as the upkeep of the main roads in Coonoor and Ootacamund, the maintenance of the lungherkhanas at Vellore and Nellore, the conservancy of the military lines and compensation under Act XI of 1881 in Bellary and Cannanore and sanitary improvements in Ootacamund. Some small grants are also made in several municipalities in aid of schools under municipal management, but these are from the educational budget and are in accordance with the Grant-in-Aid Code. The contributions from local funds are chiefly in aid of hospitals and dispensaries, the benefits of which extend beyond the municipal limits. In some cases also the local fund boards make grants towards the upkeep of through lines of road. The total receipts from provincial and local grants in 1883-84 amounted to Rupees 1,33,198, or 9·5 per cent. of the whole municipal income. As a rule, provincial funds contribute also one-fourth of the salary of medical subordinates in independent charge of municipal hospitals, but these do not, under existing orders, appear in the municipal accounts.

317. TOTAL MUNICIPAL INCOME.—The statement below [12] shows the total municipal income for each year under the various heads exclusive of balances and imperial license-tax since the passing of Act III of 1871. It will be observed that in 1871-72 the income was Rupees 9,44,000, and that, with the exception of the year 1874-75, when the profession-tax was temporarily abolished, and the years 1876-77 and 1877-78 when the famine prevailed, there has been a general and well-sustained tendency to increase until in the past year, 1883-84, the highest figure yet recorded was reached, viz., Rupees 14,06,230, of which Rupees 9,98,716 was from taxation properly so called and the remainder was income from other sources. The incidence of the taxation per head of the municipal population was 12 annas and 1 pie including tolls and 8 annas and 9 pies excluding them; that of the income from other sources having been 5 annas. If, however, the proceeds of the license-tax be taken into calculation, the incidence of taxation would be Rupees 0-13-3 and that of the total income Rupees 1-3-6.

318. APPLICATION OF FUNDS.—The funds raised under the Act must, subject to such rules and restrictions as the Governor in Council may from time to time prescribe, be applied within the towns in which they are raised to the following purposes:—"(a) The construction, repair, and maintenance of streets, bridges and other means of communication; (b) the construction and repair of hospitals, dispensaries, lunatic asylums, choultries, markets, poor-houses, tanks and wells, the payment of all charges connected with drains, sewers, water-works, the objects for which such buildings have been constructed, the training and employment of medical practitioners and vaccinators, the sanitary inspection of towns and villages, the application of the Indian Contagious Diseases Act, the registration of births and deaths, the lighting of the streets, the cleansing of the streets and tanks and wells and other works of a similar nature; (c) the diffusion of education and, with this view, the construction and repair of school-houses, the establishment and maintenance of schools, either wholly or by means of grants-in-aid, the inspection of schools, and the training of teachers; (d) other measures of public utility calculated to promote the safety, health, comfort, or convenience of the people; (e) the payment of salaries, leave allowances, pensions, gratuities and compassionate allowances to servants employed by the municipal council; and (f) the payment of all expenses specially provided for by this Act but not included under the preceding clauses of this section. The water-tax, however, cannot be expended on any object other than that for which it is levied. It is also competent to the councillors (section 114), with the sanction or upon the direction of Government, to contribute towards the expenses incurred in any other municipality under the Act, or in any local fund circle, where such expenditure is incurred for any of the purposes above mentioned and is calculated to benefit the inhabitants of the contributing town, but, if the initiative in regard to such contribution is taken by Government, the councillors must be given an opportunity of offering their opinions on it. Government may further appoint officers to inspect or superintend the operations of

[12] TOTAL RECEIPTS FOR ELEVEN YEARS.

Receipts.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
x on houses and land...	2,24,994	2,60,514	2,45,146	2,88,939	3,08,325	3,02,224	3,24,560	3,57,287	4,01,109	4,05,764	4,30,983	4,17,749	4,48,460	44,16,054
ofession tax	1,54,610	1,81,435	1,53,158	35,495	41,157	43,020	65,482	87,071	1,08,409	1,31,144	1,40,721	1,36,230	1,40,582	14,18,514
x on vehicles	72,338	82,838	85,520	88,058	44,124	46,948	94,448	98,215	1,01,150	98,962	1,03,873	1,07,337	1,15,228	12,37,980
x on animals					49,650	49,291								
lls and ferries	3,01,503	3,27,152	3,42,970	3,18,977	3,39,710	2,79,389	2,53,666	2,34,117	2,52,148	2,60,160	2,82,046	2,89,873	2,75,369	37,57,080
cense fees	14,453	15,511	14,561	17,883	21,091	18,273	17,791	18,518	15,933	17,808	19,858	18,223	19,077	2,28,980
Total income from taxation	7,67,898	8,67,450	8,41,355	7,49,352	8,04,057	7,39,145	7,55,947	7,95,208	8,78,749	9,13,838	9,77,481	9,69,412	9,98,716	1,10,58,608
nt of markets, &c. ...	...	...	...	...	59,311	64,270	64,035	69,117	75,179	80,483	87,611	91,600	97,395	6,89,001
ues	10,927	12,229	10,839	10,857	17,742	23,045	25,803	30,181	28,753	24,793	24,136	22,299	22,922	2,64,526
scellaneous	1,30,611	1,61,637	1,88,317	2,06,383	1,59,027	1,32,920	1,14,723	1,13,554	1,30,333	1,24,978	1,35,774	1,24,182	1,31,320	19,92,574
es for private scavenging, &c.					5,406	11,459	11,837	12,641	14,444	14,828	22,537	22,984	22,679	
ntribution from Provincial and Local Funds ...	34,188	71,620	79,931	97,791	90,831	75,842	92,223	91,216	1,01,347	92,148	1,22,690	1,43,631	1,33,198	12,26,656
Total income ...	9,43,624	11,12,936	11,20,442	10,64,383	11,36,374	10,46,681	10,64,568	11,11,917	12,28,805	12,51,068	13,70,229	13,74,108	14,06,230	1,52,31,365
Opening balance ...	1,64,582	2,22,115	2,32,580	1,74,655	1,48,617	1,26,404	82,671	88,558	98,759	1,42,962	1,60,382	1,83,822	2,18,072	20,44,179
Grand Total ...	11,08,206	13,35,051	13,53,022	12,39,038	12,84,991	11,73,085	11,47,239	12,00,475	13,27,564	13,94,030	15,30,611	15,57,930	16,24,302	1,72,75,544

the municipalities and fix their salaries, such expenses being ratably defrayed by the municipalities concerned. Under this section municipalities are required to pay for the Municipal Department attached to the Government Secretariat. Lastly, under section 115, Government may transfer to the municipal council, with their consent, the management of any institution or the execution of any work not provided for by this Act, but in every such case the necessary funds should be placed at the disposal of the council. To the above objects of expenditure the legislation of 1878 added 75 per cent. of the cost of the town police, but, as before stated, it has not been levied at more than 60 per cent. in any town, and a recent order of Government has relieved the municipalities of all present liability on this account.

319. In the municipal budgets the expenditure is distributed into five main heads or grants. They are as shown at foot.[13] Besides these heads there are charges for repayment of debt and interest thereon, refunds and advances recoverable.

320. Budget Grant I, Public Works.— The most important service under this head is, of course, the making and maintenance of roads. It may be broadly stated that, with the exception of a few roads in cantonments and in the hill stations of Ootacamund and Coonoor, all roads in the municipalities, including those portions of the trunk lines which run through them, are maintained entirely by those bodies. Other public works are dispensaries and hospitals, markets and cart-stands, slaughter-houses, rest-houses, schools, drainage and water-supply projects, and so forth. The total expenditure under this head in 1883-84 was Rupees 3,90,796.

321. The expenditure on public works is entirely under the control of the councillors, and they in almost every case employ their own agency which is of a very inexpensive kind, but in some exceptional cases aid, by way of advice, is given by the public works officers of Government. There is, however, no system of inspection and report by Government officers, as is the case with education and medical and the several branches of the sanitary, service. The only restrictions by Government are those exercised under the budget provisions of the Act.

322. Grant II, Education.—This is one of the services, the care of which was first imposed on the municipalities by the legislation of 1871. Its importance has been yearly increasing. The abstract at foot [14] shows the total amount expended on education from municipal funds in 1883-84 and the classes of objects on which it was spent.

323. The superseded Act in no way limited the discretion of the councillors in regard to the kind or standard of education which they should have provided. No special tax was set apart for education; provision for the service was made from the general revenues, and no fixed proportion of such revenues had to be devoted to education, although the Government had made a general ruling that 15 per cent. was a fair proportion. The powers of Government in regard to this service were the same as those given to it under the budget sections of the Act, and the clause which provided that funds were to be expended "subject to such rules and restrictions as the Governor in Council may from time to time prescribe." The executive

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[13] Heads of Budget Outlay.—(1) *Grant I, Public Works,* of various kinds embracing both new works and repairs undertaken in connection with communications, buildings, drainage, water-supply, &c. (2) *Grant II, Education,* including expenditure on training schools, municipal schools, salary and result grants, schools on the combined system, inspection, and miscellanous items. (3) *Grant III, Sanitary and Medical.*—This includes hospitals and dispensaries and part of the cost of the Medical College at Madras and of the establishment of Assistant Surgeons, vaccination, registration of births and deaths, and all conservancy charges. (4) *Grant IV, Miscellaneous,* that is, lighting, markets, and slaughter-houses, choultries, protection from fire, and many other sundry items. (5) *Grant V, Establishment,* whether for ordinary office work in the towns or for the collection of the taxes, or for the cost of the controlling establishments in the Government Secretariat.

[14] Educational Outlay in a single year.

	RS.		RS.
Training schools	603	Result grants	47,227
Municipal schools	50,086	Inspection	5,115
Combined system schools	30,171	Miscellaneous	1,600
Salary grants	15,526		
		Total ...	1,50,328

educational agents, whether teachers or inspectors, like other servants of a municipal council were appointed, were liable to be removed by the president without reference either to Government or the councillors, although the latter determined their salaries. In the present Act, however, the duties of the councillors in regard to education are better defined and ample powers have been conferred on Government for exercising control.

324. GRANT III, SANITARY AND MEDICAL SERVICES.—The total expenditure under all heads of this grant (which includes some unimportant items, such as alms-houses) was in 1883-84 Rupees 5,91,320.

325. There are about 51 municipal hospitals employing nearly 67 medical subordinates, and the number of patients treated in the course of the year was over 500,000 and the expenditure amounted to Rupees 1,94,839. Most of these institutions receive in-patients. Many of them have trained midwives attached, and no part of the municipal expenditure appears to be better appreciated by the townspeople. Considerable endowments have from time to time been handed over to the municipalities for the support of the hospitals, and the Local Fund Boards almost everywhere contribute to their support in return for the benefits which the inhabitants of the rural tracts receive from these institutions. The majority of the medical subordinates employed are of necessity Government officers, since the demand far exceeds the supply of independent medical men available. Some such are however employed, and the number will probably increase with the spread of medical education in which the municipalities are now interesting themselves, three towns having established medical schools of their own and the gratuitous education of civil apothecaries in the Madras Medical College having been discontinued.

326. The hospitals, being generally at the head-quarters of the districts, are for the most part under the immediate supervision of the District Civil Surgeons, or the Assistant Surgeons or both, and are consequently well and economically managed, while those elsewhere than at head-quarters are generally visited twice a year by the Civil Surgeons. The Surgeon-General with the Government of Madras visits and inspects the medical charities of municipalities periodically. The medical officers being almost always Government subordinates lent to the municipalities, their disposition and control must rest finally with the head of the medical department, and the indents for medicines are scrutinized, and sometimes altered before supply, by the Surgeon-General; but the wishes of the councillors are, as far as possible, consulted, and in all other matters of a non-professional character the municipalities are uncontrolled, except by Government in exercise of its general powers under the budget sections of the Act.

327. Adequate scavenging establishments, supervised by inspectors and peons, are maintained in almost every municipal town. The collections of sweepings and rubbish and the contents of the latrines are carted outside the towns and buried or burned, the ashes being sometimes mixed with latrine stuff and sold as manure. The latrine accommodation, though still insufficient, is being enlarged and improved every year. Increasing attention is being paid to the cleanliness of the streets and of private premises, and there is every reason to believe that great changes have been and are still in progress in the sanitary condition of many towns, which will eventually produce a favorable result, not only in their own healthiness, but in that of the surrounding districts also. The greatest difficulty is in connection with the conservancy of private houses, not only of the poor, but often of the well-to-do classes also. The privacy of the home among Eastern nations renders the task of efficient supervision very difficult, but the gradual spread of knowledge of the simpler laws of health will in time render the work of the councillors in this direction easier and less antagonistic to the general opinion of the people. It is very usual, especially in the larger towns, for the councillors to entrust to the resident medical officer, provided he is a member of the council, a large share in the control of the detailed arrangements for the conservancy and sanitation of the town, and they thus have the benefit, free of cost, of these officers' special professional knowledge and experience without in any way surrendering their own

responsibility and right of control. The expenditure under this head in 1883-84 was Rupees 3,74,999.[15]

328. As in the case of education, of hospitals, and of vital statistics, the care of vaccination was transferred to the municipalities in 1871. Since then very great progress has been made, and the prejudice which once existed against it may be said to be now quite broken down in the municipal towns. A staff of 48 first-class and 38 second-class vaccinators with 10 probationers was maintained at a cost of over Rupees 13,097, and in the past year 55,876 persons were vaccinated in the towns, while the number of births was only 37,572, showing that the work of the vaccinator is rapidly embracing the whole population. The vaccinators are entirely under the control of the councillors, but their work is inspected by deputy inspectors of vaccination and the Deputy Sanitary Commissioner.[16] Under the new Act, vaccination can be made compulsory in any town. It remains, however, to be seen what use will be made in the future of the powers thus conferred by legislation.

329. The duty of registering births and deaths is now performed by the municipalities, who either employ special registrars or utilise the vaccinators for the purpose, which is the case especially in the smaller towns. The cost of the service was Rupees 8,385 in 1883-84.

330. Copies of the annual budget estimates, so far as they relate to the provision for sanitation, conservancy, and vaccination, are furnished to the Sanitary Commissioner, and he reports to Government on the adequacy or otherwise of the several grants. He is also furnished at the end of every year with sanitary reports showing in detail the sanitary improvements made during the year and the works

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[15] EXTRACT FROM REPORT OF MADRAS COMMITTEE ON LOCAL SELF-GOVERNMENT (1883).—"The existing Act (sections "114 to 118) contains many useful provisions enabling the commissioners to conserve at least to some extent the water-"supply of the town. These provisions however appear to us to be defective in two most important respects—(i) because "they impose no duty or responsibility on the commissioners in regard to water-supply; (ii) because they give the "commissioners little or no power to deal with impure water-supply in private wells and tanks. There is, perhaps, no "branch of sanitation in an Indian town which is of such vital importance to the health of the people as the provision of "a pure supply of water for drinking and domestic purposes, and there is no branch which has been so generally neglected "by the persons concerned. An improvement has, indeed, taken place of late years in this respect, and some of the "larger towns have undertaken and carried out efficient schemes of water-supply, but these are the exception, and we "doubt if the commissioners yet, as a rule, recognise their responsibility, or the people their interest, in the matter. In "the case of the other services, such as education, medical charity, vaccination, and street conservancy, it has been easy "for the district authorities and for Government to obtain a knowledge of the provision made and of its adequacy, or "otherwise, by means of statistical reports and returns, but the question of water-supply is much more indefinite. It is "mainly one of quality, not quantity, and each source of supply requires to be scientifically examined before it can be "known with certainty whether it is wholesome or the reverse. For these reasons the district and central authorities "have not been able to urge the local bodies to deal with the question in an adequate manner as they could in the case "of vaccination and other more definite services, and the want of prominence of the subject in the Act has caused it "the more easily to be forgotten or neglected. We therefore propose that it be brought distinctly forward as a compul-"sory duty of the commissioners to provide, so far as their means will permit, a sufficient supply of pure drinking water "for the townspeople. We believe that in the majority of cases it will suffice to improve and conserve existing sources "of supply, or to supplement them in an inexpensive way by digging fresh wells or constructing channels from some "source away from the town. But in some cases the cost of making adequate arrangements may be more than can be "met from current income, and in these circumstances we contemplate the necessity for borrowing under the Local "Authorities Loan Act, No. XI of 1879, and we have provided that, where loans are taken for this purpose, the com-"missioners may, with the sanction of Government, raise a special water-rate not exceeding 4 per cent. on the rent-value "of houses and lands in addition to the taxes authorized under section 38 of the existing Act, the proceeds of "such rate being made applicable only to the repayment of the loan and to defraying the charges for interest thereon. "With regard to the second matter, we are satisfied that the water-supply of the towns cannot be adequately "dealt with, unless the commissioners have increased powers over private wells and tanks containing unwholesome water "habitually used for domestic purposes."

[16] EXTRACT FROM REPORT OF MADRAS COMMITTEE ON LOCAL SELF-GOVERNMENT (1883).—"The Act contains abso-"lutely no provision regarding vaccination, except the general one rendering expenditure thereon competent to the "commissioners. We think that it can hardly be doubted but that it is the duty of the commissioners to make suitable "provision for the vaccination of the townspeople. The duty is now performed in all towns under the Act, but if, as we "propose, a considerable extension in the number of municipalities is made, it is possible that the duty might be "neglected or inadequately performed. The duty cannot be a difficult or oppressive one even in the smallest towns, as "competent vaccinators are available on very small salaries, and, if the work of the town is not enough to fully employ "one vaccinator, there will be no difficulty in arranging with the Local Fund Board that he should attend to a certain "number of the surrounding villages, and in return draw a portion of his pay from such Board, much in the same way as "has already been suggested in regard to hospitals and dispensaries. Considerations similar to those there adduced "have also led us to provide for adequate powers of inspection and control in professional matters by the higher sanitary "officers of Government. Certificates of vaccination are now so generally required as a preliminary to Government "and other employment, and to admittance into schools and for other purposes, that we have provided that the "vaccinator shall grant, free of cost, a certificate of vaccination or of insusceptibility to vaccination, as the case may "be, to every child vaccinated by him. We also desired that a provision should be inserted by which, in towns, "under the elective system, the commissioners should have power to introduce compulsory vaccination, provided a "resolution to that effect was carried at a special meeting by a majority of three-fourths of those present and voting "and provided such majority was not less than half of the whole commission. Surgeon-General Cornish, however, "who is one of our number, has informed us that he will shortly address Government and move it to introduce an Act "similar to the Government of India Act, XIII of 1880, which will sufficiently provide for our suggestions on this point."

executed or in progress. By these means, and by the tours which he and his Deputy make, he is kept informed of the sanitary condition and history of each town, and is in a position to bring to the notice of Government any matter requiring their interference. He has no power, nor does he attempt to exercise any direct control over the several establishments and the execution of their work. This can be done only by the councillors or their executive officers, who, however, have the assistance of the proceedings of the Sanitary Commissioner, which are printed each month and circulated to all municipalities.

331. Grant IV, Miscellaneous.—The most important item under this head is lighting. Every town except Chicacole is now provided more or less efficiently with this convenience, and the service thus rendered is one of those best appreciated by the people. The cost of the service was in 1883-84 Rupees 59,045.

332. Grant V, Collection and Management.—This cost in the past year Rupees 1,13,227, or about 6·6 per cent. of the municipal expenditure, though in some of the smaller towns the percentage is more.

333. Total Municipal Expenditure.—The abstract at foot [17] exhibits in one view all the items of expenditure during 1883-84, classed, as in the case of receipts according to the form adopted by the Government of Madras in the body of their general reports or municipal administration.

334. Audit.—The councillors are bound to send to Government an annual report of their proceedings and statements in detail of all works executed by them and of all sums received and expended. Government has also power to make rules as to the accounts to be kept by the municipal council and the manner in which such accounts shall be audited. The practice, however, has been for the councillors to appoint a local auditor once a year to audit and report on the accounts, and these papers were in the habit of being sent to Government with the annual report. Arrangements are now being made to have a monthly audit by the staff of local fund auditors working in the districts under the orders of the Accountant-General. Cases of municipal defalcations are not unknown, but it is believed that they are not more frequent or serious than in other public or quasi-public offices.

335. Law.—The following are the Acts in force in this Presidency relating directly or indirectly to the subject:—India Acts XXIV of 1859, VII of 1870, X of 1870, and I of 1871, Madras Act VII of 1878, India Acts XI of 1879, III of 1880, and XI of 1881, and Madras Acts IV and V of 1884. Besides these, there is the set of rules for the election of municipal councillors already given as a footnote, but which will shortly be revised, and bye-laws sanctioned from time to time for use in particular municipalities. All these have the force of law.

[17] Heads of Expenditure.

Grant.	Charges.		Grant.	Charges.	
		RS.			RS.
I.	Public Works	...	IV.	Conservancy	3,74,999
	Roads	2,10,405		Lighting and Miscellaneous	...
	Drainage	18,940		Lighting	59,045
	Water-supply	11,057		Watering roads	773
	Buildings	54,428		Miscellaneous *	1,01,394
	Miscellaneous	13,199		Interest and repayment of debt ...	11,800
	Public Works establishment	18,107		Contribution † to Local or Provincial Funds.	20,278
	Total, Public Works ...	3,90,796	V.	Supervision, management, &c. ...	1,13,227
II.	Education	1,53,328		Total ...	14,38,961
III.	Sanitation and Medical Services ...	...		Balance	1,91,332
	Hospitals and Dispensaries	1,94,839			
	Vaccination	13,097		Grand Total ‡ ...	16,30,293
	Registration of births and deaths ...	8,385			

* Includes advances, refunds, &c.

† This is in the individual accounts distributed under the several grants according to the object of the contribution.

‡ The difference between this total and that shown in the statement under section 533 is due to the 5 per cent. commission on account of license-tax being omitted from the latter along with the collections under the tax.

MILITARY.

336. INTRODUCTION.—The Madras Army [1] originally garrisoned the Madras Presidency only. At the present time it garrisons the adjoining State of Mysore, the Nizam's Dominions, the Central Provinces, and British Burmah; while a Native infantry regiment is usually stationed at Cuttack in Orissa, and a company of Native infantry at Camorta in the Nicobar Islands. There are no British troops south of Trichinopoly, but a regiment of Native infantry is stationed at Quilon, with detachments at Trivandrum and Trichoor. The railway system is now completed, and lines connect all the stations where British forces are stationed, except Calicut, Cannanore, Mallapooram, Wellington, Poonamallee, Thayet-myo, Toungoo, and Port

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[1] SKETCH HISTORY OF THE ARMY IN THE MADRAS PRESIDENCY.—(1) *First Formation of the different arms of the Madras Army.*—Fort St. George was built in 1644, but, as already seen in the article on History, the year 1744 marks the time when the English were actually for the first time engaged in military operations. In September 1746, when Fort St. George was taken by the French, the Government devolved on the Governor and Council of Fort St. David, who thereupon proceeded to raise an army. The troops first raised were European cavalry, European artillery, European infantry, and Native infantry. The European cavalry never rose above the strength of a squadron, and were not maintained for more than a few years. They were found very useful and efficient, but too expensive. The first sepoy levies had little or no discipline, and consisted of bodies of various strength, each under the command of its own chief, who received from Government the pay of the whole body. Sometimes those chiefs were the owners of the arms carried by the men, and received from each man a rupee a month for the use of the weapons. The local sepoys of this time were scarcely more than a rabble of peons. The English were behind the French in this respect, and for a considerable time took more pains to enlist foreign levies, such as Caffres, Topazes, Arabs, Rajpoots, &c., than to develop the material under their hand. Native cavalry were first raised in 1784, and Native artillery as a separate corps in 1805. The Corps of Madras Engineers was first formed on a strictly military basis in 1770. A militia was first raised in Madras in 1798. (2) *Detailed History of the Madras Army from* 1746 *to* 1861.—As has just been mentioned, the first establishment of the Company's Indian Army may be considered to date from the year 1746, when a small body of sepoys was raised at Madras, after the example set by the French, for the defence of the settlement, during the course of the war which had broken out four years previously between France and England. At the same time a small European force was raised, formed of such sailors as could be spared from the ships on the coast, and of men smuggled on board the Company's vessels in England by the crimps. In 1748 an Officer, Major Lawrence, was appointed by a commission from the Company to command their forces in India. Hostilities between the English and French were terminated in 1749 on the receipt of news of the Treaty of Aix-la-Chapelle; but, about the same time, the settlements of both nations began to take an active part in the politics of the peninsula, and the engagements into which the English entered with the parties whose cause they supported, led to a rapid increase of the Madras Native army, stimulated further by the outbreak of the Seven Years' War in 1756. The military force with which Clive retook Calcutta in 1757 from the Nawab of Bengal, and won the Battle of Plassey, was principally composed of Madras troops, Native and European, with part of a royal regiment of foot. In 1758, when nearly all the Madras European troops were absent under Clive at Calcutta, and the French were besieging Fort Saint George, the Madras sepoys were formed into regular companies of 100 men each, with a due proportion of native officers, havildars, naicks, &c.; and rules were made for pay and promotion. In 1759, after the siege had been raised, the companies were formed into five battalions. The overthrow of the French power, in 1761, left the Madras Army for a time without a rival; but the Madras Government had now undertaken the defence of the Carnatic on behalf of its ruler, whom it was rapidly supplanting from all but the nominal sovereignty, and the engagement involved the maintenance of a considerable garrison. In 1766, a military code was published. In the year 1772, the Madras Army contained about 3,000 European infantry and 16,000 sepoys, with a staff of more than 600 officers, the greater part of the cost being defrayed by the Nawab of the Carnatic. This force was shortly afterwards further augmented in consequence of the war with the Mahrattas and with Hyder Ally. The organization followed, up to this time, had been of the kind now popularly known as the 'irregular' system, in contradistinction to that based on the English regimental plan, the promotion of the officers running in one list for the whole army, from which they were posted to the various battalions. In all matters connected with pay, equipment and the audit of accounts, the army administration partook of the general laxity and disorder which up to that time had pervaded every branch of the Company's Government in India, the major part of the officers' emoluments being derived from irregular perquisites; while, as regards the morale and discipline of the early Company's army, the history of those days records a succession of mutinies, in which the black and white troops were alternately employed to coerce each other. Lord Cornwallis, who was appointed the first Governor-General in India, after the passing of the Act of 1784, which gave the Governor-General authority over the three presidencies, was also appointed Commander-in-Chief, and was thus vested with supreme authority over both civil and military affairs throughout India. Up to this time it had been usual to confer a step of local brevet rank on all lieutenant-colonels of the royal service, an arrangement which naturally caused great dissatisfaction among the Company's officers, whose own commissions were moreover often not recognised by the former as giving valid rank. The high authority conferred by the rank and military reputation of Lord Cornwallis, enabled him to procure the repeal of a regulation which was repugnant to his sense of justice. Through his representations the local brevet promotions were withdrawn in 1788, and brevet commissions in the royal service were granted by him as Commander-in-Chief to all the Company's officers, with corresponding dates to those of their substantive ones. This arrangement was continued until the abolition of the Company's government in 1858. From 1772 until 1796, the strength of the Indian Army underwent a gradual increase, occasioned by the Mahratta war of 1778 and the war with Hyder Ally and Tippoo. The Madras Army received a large share of the augmentation. In the year 1794 the Madras establishment of native troops was about 24,000 strong. In 1796, the organisation of the Indian Army was entirely recast. Heretofore, the officers belonging to the establishment of each presidency had been borne on one seniority list, from which they had been distributed among the different regiments; and the proportion of junior to senior grades was exceedingly unfavourable for promotion, there being about eight subalterns to every captain. They were now divided into separate cadres, one for each native regiment of two battalions, to which henceforward the respective officers were permanently attached, their promotion up to the rank of major running in the order of regimental seniority. The lieutenant-colonels and colonels remained on separate lists for each branch of the service, to which the regimental majors were promoted in order of seniority, on succession to vacancies. The establishment of each regiment was fixed at 1 colonel, 2 lieutenant-colonels, 2 majors, 8 captains, 22 lieutenants, and 10 ensigns, and the result was a great advancement in rank throughout the army. This system of promotion was maintained until the reorganisation of 1861. The regiments of artillery and engineers were at the same time organised on a similar footing to that of the infantry. An establishment of generals was also formed for the Company's army, the officers of which, owing to the power conferred in 1753 on the Company to grant generals commissions having been withdrawn, were not at this time eligible for promotion beyond the rank of colonel. It was also provided that a specified number of the divisional commands should be held by major-generals of the royal army. These were fixed at two for Bengal, and one each for Madras and Bombay; and until lately these, with a limited number of brigade commands, were the only appointments on the

Blair. As regards the station of Thayet-myo, at present the railway from Rangoon does not run further than Prome, but from thence there is a steamer-route to Thayet-myo, a distance of 44 miles. There are three corps within the above limits not under the orders of the Madras Commander-in-Chief, the Nayar Brigade in Travancore, which is a small force of Native infantry, the regiments of Mysore Sillahdar Horse, and the Hyderabad Contingent.[2] The Army Head-quarters offices were permanently removed from Madras and established at Ootacamund on the 6th March 1884. The scale of military allowances is given in Vol. II, App. LXXXI, and a history of the fortifications at Fort St. George from the earliest times to the present day in Vol. II, App. XLIII.

337. Constitution of the Army.—The whole force under the orders of the

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staff of the Indian army which could be held by officers of the royal service. The year 1796 was further marked by the introduction of furlough regulations, which entitled officers to visit England without resigning the army, and also to quit India on sick leave, retaining their Indian allowances and appointments during absence. The privileges conferred by these regulations were, however, partly withdrawn in 1854, and they were still further curtailed, virtually, by the operation of the amalgamation measure of 1861. They were restored with still more favourable conditions by the furlough rules of 1868. In 1798 there was a large increase to the army in India, and the Madras infantry was raised from 30 to 50 battalions. A considerable augmentation was also made to the Native cavalry and the Company's artillery of all kinds. The British troops in India were also largely increased; but the Company's European infantry, which had always been far below its nominal strength, was reduced to one regiment per presidency. In 1808, after the close of the Mahratta war, the military forces were reduced to a permanent peace-footing. The Madras establishment of Company's troops consisted of 1 battalion of European infantry, 2 battalions of artillery, 8 regiments of Native cavalry, and 46 battalions of Native infantry. In 1823 the two battalion regiments of Native infantry were divided into regiments of one battalion each. The officers of a regiment under the new organisation consisted of 1 colonel, 1 lieutenant-colonel, 1 major, 5 captains, 10 lieutenants, and 5 ensigns: the total number of officers being 23. In 1843 a second European regiment was added to the Company's army at each presidency, and a third was added in 1854. The artillery also underwent considerable augmentation. In 1856, the year preceding the mutiny, the establishment of Company's troops in Madras consisted of 3 regiments of the Company's European infantry; 7 battalions of artillery, European and Native; 8 regiments of Native cavalry; and 52 battalions of Native infantry. The Native battalions were 900 strong in Madras. In 1857 one regiment of Madras Native cavalry showed a mutinous spirit and was disbanded. Since the mutiny, the Indian army consists wholly of natives, the local European troops having been transferred to the British service. The Madras army was reduced by 12 regiments of infantry and 4 of cavalry, the strength being fixed at 40 battalions of Native infantry and 4 of cavalry. The Indian army also underwent a complete reorganisation in 1861, and is now formed on what is commonly styled the 'irregular' system. Under the new system, every regiment has an establishment of seven effective officers, who are specially appointed to it; who are not liable to displacement; and whose places are permanently filled up if they quit it to obtain other employment. At the same time, the system which regulated the promotion of the European officers by regimental seniority, and which had lasted from 1796 till 1861, was abandoned. The officers of the Indian army now belong to an unattached list, termed the Staff Corps, in which promotion is made by length of service, and from which officers are appointed to the different military and civil situations which have to be filled throughout the country. (3) *History of operations in the field by the Madras Army.*—This history for the whole Madras Army naturally divides itself into seven portions: from 1746, the first raising of troops, to 1769, conclusion of the first war with Hyder; from 1769 to 1784, conclusion of the second war with Hyder; from 1785 to 1792, conclusion of the first war with Tippoo; from 1793 to 1799, capture of Seringapatam; from 1800 to 1820, destruction of the Mahratta power; from 1821 to 1830, first Burmese war; and from 1831 to the present time. A sketch of their operations in the field is given in the article on History above. It may be mentioned that the sepoy army experienced their first serious engagement in 1767 at the actions of Changama and Trinomallee in the war with Hyder, where the close fighting fell to them rather than to the Europeans. (4) *Historical works published regarding the Madras Army.*—The history of the Madras European artillery has been detailed in a work by Major P. J. Begbie (1852); that of the Madras European infantry in a book styled "Historical Record of the Honourable East India Company's First Madras European Regiment, by a Staff officer" (1843); the Sepoy army, still subsisting as the Madras Native Army, is finding a historian in Colonel W. J. Wilson, whose work is now in course of production. The history of the Madras Engineers has been quite recently written by Major H. M. Vibart, R.E. (5) *British Troops in Madras.*—The first regiment of the British Army sent to India was the 39th Foot, which arrived at Madras in the year 1754. This regiment formed part of the force which went with Clive to the relief of Calcutta in 1756, and it was present at the Battle of Plassey in the following year. In 1758, it was nominally sent home, but in effect was broken up, the men being invited to volunteer into the local force, and the officers offered commissions in the Company's army. Madras remained without Royal troops until 1758, when a newly-raised regiment of the line, the 79th, was sent out, followed by the 84th, commanded by Lieutenant-Colonel Eyre Coote, and the 96th. In 1759, Coote's regiment was transferred to Bengal, and he was appointed by the Company Commander-in-Chief of their forces in that presidency. On the peace of 1763 the British line was again reduced to 70 regiments, and India remained without any Royal troops until 1779, when the 71st, then numbered 73rd, foot was raised and despatched to Madras. Four other new regiments followed, to aid in the war against Hyder Ally. In 1788 the Royal troops stationed at Madras consisted of one regiment of dragoons and 9 battalions of foot. In 1808 the British troops in Madras comprised 2 regiments of cavalry and 3 battalions of infantry. From 1843 to 1854 there was a gradual transfer of line battalions from Madras to Bengal. In 1856, the year preceding the mutiny, the British troops in Madras consisted of 1 regiment of cavalry and 3 battalions of infantry.

[2] Sketch Account of the Nayar Brigade, Sillahdar Horse and Hyderabad Contingent.—(1) *Nayar Brigade.*—The Nayar Brigade is composed of two battalions of infantry, numbering in all 1,420 men, and commanded by three European officers of the Madras Army with two British non-commissioned officers. The force is armed with M.L. smooth-bore percussion muskets. (2) *Mysore Sillahdar Horse.*—The Mysore Sillahdar Horse was raised from the ruins of Tippoo's cavalry after 1799. They have not been on field service since 1824, except for a short time in 1857, when three regiments were in the Ceded Districts. Low pay, bad horses and arms reduced the number and impaired the efficiency of the force until 1872, when reforms were instituted, and the men are now carefully drilled. There are now 42 native officers and 1,143 men armed with lance and pistol. The pay of the men is Rs. 26 a month. The horses are bought from Persian and Candahar dealers, and number 1,138 horses and 851 mares; and at Koongal there is a breeding farm with 18 stallions. The infantry consists of 69 native officers and 1,752 men. (3) *Hyderabad Contingent.*—The Hyderabad Contingent, which was originally a part of the Nizam's army, became by the Treaty of 1853 with the Nizam an auxiliary force kept up by the British Government for the Nizam's use. The Berars or Hyderabad Assigned Districts were assigned to the British Government under this treaty for the maintenance of the force. The Contingent consists of four field batteries of artillery, four regiments of cavalry, and six regiments of infantry, the total strength being 7,880 officers and men. The horses of the cavalry are sillahdaree or private property. The head-quarters of the Contingent are at Bolarum, the other stations garrisoned by it being Hingoly, Mominabad, Aurungabad, Ellichpore and Ryechore. The Contingent is under the orders of the Government of India.

Madras Commander-in-Chief is shown at foot.[3] Of this force the section serving in Burmah and Bengal is shown in the second list.[4] In 1883-84 the strength of the British army amounted to 388 officers and 11,037 non-commissioned officers and men; total 11,425. Native army, 337 European officers, 560 Native officers, and 28,689 non-commissioned officers and men. Grand total 29,586 officers and men. The details are shown below.[5] With this may be compared the strength for all India [6] and the forces entertained by native chiefs.[7] The army is divided

[3] Constitution of the Madras Army.

2 regiments of British Cavalry;
2 batteries of Royal Horse Artillery;
8 batteries of Field Artillery;
6 batteries of Garrison Artillery, of which one is a Heavy battery stationed at Secunderabad and one a Mountain battery at Thayet-myo.
9 regiments of British Infantry;
The Queen's Own Sappers and Miners, consisting of 10 companies;
4 regiments of Native Cavalry;
32 regiments of Native Infantry.

[4] Madras Forces in Burmah and Bengal.

4 batteries of Artillery;
2 regiments of British Infantry;
1 company of Sappers and Miners, and
4 regiments of Native Infantry, British Burmah.

1 battery of Artillery;
1 regiment of British Infantry;
1 company of Sappers and Miners;
1 regiment of Native Cavalry, and
8 regiments of Native Infantry, Bengal Presidency.

[5] Details of Madras Army.

Arm of Service.	Total number of fighting officers and men.								Detail of force at end of 1883-84.							
	Remaining at end of last year.	Recruited this year.	Died.			Invalided.	Discharged, deserted, &c.	Remaining at end of year.	Number of regiments, battalions, or batteries.	Number of guns.	Number of men.					Paid camp-followers and non-combatants.
			In action.	Otherwise.	Total.						European commissioned officers.	Native commissioned officers.	Non-commissioned officers.	Fighting men.		
European. Cavalry.	961	279	...	13	13	77	75	1,075	2	...	43	...	69	963		1,132
European. Sappers.	73	8	...	1	1	7	...	73	1	...	...	...	3	70		...
European. Artillery.	2,488	432	...	25	25	202	286	2,407	16	76	90	...	145	2,172		2,952
European. Infantry.	7,788	2,504	...	79	79	590	1,753	7,870	9	...	255	...	429	7,186		576
Total ...	11,310	3,223	...	118	118	876	2,114	11,425	28	76	388	...	646	10,391		4,660
Native ... Cavalry.	1,560	59	...	18	18	34	25	1,542	4	...	40	46	124	1,332		2,039
Native ... Sappers.	1,314	65	...	18	18	27	14	1,320	1	...	19	19	44	1,238		73
Native ... Infantry.	25,997	2,204	...	331	331	730	416	26,724	32	...	278	495	1,305	24,646		796
Total ...	28,871	2,328	...	367	367	791	455	29,586	37	...	337	560	1,473	27,216		2,908
Grand Total ...	40,181	5,551	...	485	485	1,667	2,569	41,011	65	76	725	560	2,119	37,607		7,568

Medical officers and Veterinary Surgeons not included.

[6] Strength of Army throughout India.—The following table gives the established strength of the European and Native Army in British India—exclusive of Native artificers and followers—on the 31st of March 1882:—

Corps.	Total.			Corps.	Total.		
	Officers.	Non-commissioned officers and privates.	Total.		Officers.	Non-commissioned officers and privates.	Total.
European Army.				Native Army.			
Royal Artillery ..	598	11,583	12,181	Artillery	19	1,943	1,962
Cavalry	252	4,095	4,347	Body Guard	8	194	202
Royal Engineers ..	305	..	305	Cavalry	304	18,083	18,387
Infantry	1,650	44,312	45,962	Sappers and Miners ..	244	3,019	3,263
Invalid and Veteran Establishment.	34	102	136	Infantry	1,068	102,655	103,723
Staff Corps	1,150	..	1,150				
General List, Cavalry.	68	..	68				
General List, Infantry.	179	..	179				
Unattached Officers ..	7	..	7	Total, Native Army ..	1,643	125,894	127,537
General Officers unemployed.	85	..	85				
Total, European Army.	4,328	60,092	64,420	Total, European and Native Army.	5,971	185,986	191,957

into 3 divisions and 4 brigades as under.[8] The commands of 1 division and 2 first-class brigades are held by officers of the British, and those of 2 divisions and 2 first-class brigades by officers of the Indian service. The stations in the different commands are indicated below.[9] The stations for British infantry are Kamptee (Nagpore) in the Central Provinces, where there are 577, Secunderabad 1,719, Bellary 1,003, Bangalore 851, Madras 627, and the coast of Malabar where there are 882 men. In British Burmah there are 1,914 British soldiers. The British cavalry and artillery quartered at the stations noted at foot [10] must be added.

338. The breeding establishment for bullocks, called the Amrut Mahaul, was made over to the Mysore State in January 1882 at a valuation. The Mysore State is bound to provide annually from 400 to 500 head of young three-year old cattle: these are passed by a committee and are then transferred to the cattle depôt at Hoonsoor until they are fit to be drafted into the public service.

339. Officers in the Supply Branch of the Commissariat Department are 1 Commissary-General, 1 Deputy Commissary-General, 5 Assistant Commissaries-General, 6 Deputy Assistant Commissaries-General, and 10 Sub-Assistant Commissaries-General. In the Transport Branch there are 1 Assistant Commissary-General, 2 Deputy Assistant Commissaries-General, 2 Sub-Assistant Commissaries-General. The Commissary-General's Office is at Madras, and the Commissariat Store Office is also there. The bullocks required for transport, artillery, and ambulance purposes are all received from the depôt at Hoonsoor, which is attached to the Commissariat Department. The number of young bullocks kept at Hoonsoor average about 2,000; they are received from the Mysore Government when they are three years old and transferred to the public service at six years.

340. The head-quarters of the Ordnance Department is in Fort St. George and is under the administration of the Inspector-General of Ordnance, aided by a

[7] ARMIES OF NATIVE CHIEFS.—Returns of the year 1879 reported the combined armies of the native chiefs of India to number 305,235 men, with an artillery of 5,252 large guns. Hyderabad had 36,890 infantry, 8,202 cavalry, and 725 guns; Bundelcund 22,163 infantry, 2,677 cavalry, and 421 guns; Cashmeer 18,436 infantry, 1,393 cavalry, and 96 guns; Gwalior 16,050 infantry, 6,000 cavalry, and 210 guns; Cattywar 15,300 infantry, 4,000 cavalry, and 504 guns; and Oodeypore, 15,000 infantry and 6,240 cavalry. The rest do not exceed 11,000 men.

[8] DIVISIONS AND BRIGADES.

Divisions.	*First-class Brigades.*
Hyderabad Subsidiary Force.	Eastern District.
Bangalore Division.	Nagpore Force.
British Burmah Division.	Ceded District.
	Western District.

[9] STATIONS IN THE DIFFERENT COMMANDS.

Division or district.	Station.	Height above sea-level.	Division or district.	Station.	Height above sea-level.
		FEET.			FEET.
Hyderabad Subsidiary Force.	Secunderabad	2,024	Nagpore Force	Sumbulpore	493
Bangalore Division.	Bangalore	3,113		Kamptee	1,019
	Wellington	6,160		Seetabuldee	1,125
	Trichinopoly	217		Hoshangabad	1,000
British Burmah Division.	Rangoon	81		Ryepore	995
	Thayet-myo	186	Ceded District	Bellary	1,482
	Toungoo	186	Western District	Cannanore	51
	Moulmein	..		Mallapooram	..
	Port Blair	..		Mangalore	65
	Camorta	..		Calicut	..
Eastern District	Cuttack	132		Quilon	25
	Berhampore	78		Trichoor	50
	Vizianagram	..		Trivandrum	120
	Samulcottah	84			
	Fort St. George	22			
	St. Thomas' Mount	235			
	Pallavaram	484			
	Poonamallee	..			
	Vellore	791			

[10] CAVALRY AND ARTILLERY DISTRIBUTED.

	Cavalry.	Artillery.		Cavalry.	Artillery.
Kamptee	...	170	Bangalore	488	497
Secunderabad	422	615	Saint Thomas' Mount	...	460
Bellary	...	171	British Burmah	...	480

Deputy. The Gunpowder and Gun Carriage Factories, each under a Superintendent, are at Madras, as well as the Camp Equipage Depôt, in which latter establishment tents are manufactured for all army and civil purposes throughout the Presidency. There are arsenals at Fort St. George, Secunderabad, and Rangoon, of which Commissaries of Ordnance are in charge, and depôts at Bangalore, Bellary, and Toungoo, which are under the charge of first and second class Warrant Officers. The proof of gunpowder is carried out at St. Thomas' Mount under the direction of a Commissary of Ordnance. In 1883-84 the Gunpowder Factory turned out 228,010 lb. of gunpowder. The principal items of manufacture in the several workshops of the Madras Arsenal were articles of accoutrement, harness, saddlery, and ordnance stores.

341. The Army Clothing Agency is located in the late Mint buildings, Madras, and supplies the whole of the Madras Army, both European and Native, with clothing. The material is for the most part obtained from England through the Secretary of State, and, whenever practicable, in the local market. The annual clothing is worked by contract on the premises with sewing machines supplied by the department. Clothing is also supplied on payment to the Hyderabad Contingent, the Nayar Brigade, the Cochin Government, &c. The value of stock in the Army Clothing Department on the 1st April 1883 was Rs. 6,96,490, the receipts during the year being Rs. 5,93,874, and the expenditure Rs. 6,03,821.

342. The Remount Depôt at Oossoor, about 30 miles from Bangalore, is under the superintendence of an officer of the Remount Department, assisted by a Veterinary Surgeon and a small European staff. It contains covered-in accommodation for about 400 horses and standing room outside for about the same number, making a total accommodation for about 800 horses. The average number of horses purchased annually is 300 for the Madras Army, all Australians, which are solely for artillery and British cavalry. The average price paid to dealers per horse is Rs. 550, and on transfer to the ranks their assumed value is Rs. 700. There were 272 horses at the depôt on the 1st April 1883 exclusive of 8 attached to the farm, and 371 horses, all Australians, were purchased during the year, making a total of 643 horses. The number remaining at the depôt on the 1st April 1884 was 325.

343. The Medical Department of Her Majesty's Forces attends to the health of troops both British and Native, and of all military establishments. The administrative portion of it embraces one Surgeon-General and two Deputy Surgeons-General belonging to the Army Medical Department, and four Deputy Surgeons-General and one Secretary belonging to the Indian Medical Service. For providing medical attendance for British troops there is a sanctioned staff of 50 executive officers of the Army Medical Department. Forty-four executive officers of the Indian Medical Department are employed in connection with native troops. All executive medical officers of the Indian Service, except those who can be spared for civil duties, are under the orders of the Surgeon-General, Her Majesty's Forces, but the number is necessarily variable. The sanctioned establishment of the Subordinate Department for troops, British and Native, consists at present of 29 Apothecaries, 61 Assistant Apothecaries, 27 Sub-Assistant Apothecaries, and 126 Hospital Assistants. The total strength for British troops will in future be 86, consisting of 8 Senior Apothecaries, 24 Apothecaries, 41 Assistant Apothecaries, and 13 Sub-Assistant Apothecaries. Such of these as may not be actually required for military duty are lent to the civil department. The Government are kept informed as to the health of the army by periodical reports and returns, and the Director-General of the Army Medical Department is also furnished with monthly returns and annual reports and returns bearing on the health of British troops. The Indian Medical Department has 1 Surgeon-General, 4 Deputy Surgeons-General for Indian Medical Department and 1 Deputy Surgeon-General for Sanitary Department, 11 Brigade-Surgeons, 64 Surgeons-Major, and 100 Surgeons. A large proportion of the officers and subordinates of the Indian Medical Department are employed on civil duties, and the medical care of the Native troops is also provided for by this department. The Government are kept informed of the state of the health of the army by periodical returns furnished by the Surgeons-General of both departments, and by the reports of the Sanitary Commissioner.

344. The army schools, which are maintained for both European and Native troops, are under the management of a Commissioned Superintendent, 1 Commissioned Assistant Superintendent, and Sub-Inspectors. The head office for the payment of pensions and family payments is at Madras. The number of pensioners throughout the Presidency on the 31st March 1884 was 31,645, and the amount of their pensions aggregated Rs. 23,15,834. The number of family certificates granted by troops and departments was 46,748, and the amount paid on them aggregated Rs. 2,63,531. They are all paid monthly.

345. LAW.—The following are the principal legal enactments regulating the army. Section 35 of the Act of Parliament, 33 Geo. III, c. 52 (A.D. 1793), relates to the removal or dismissal of officers in India by the Crown, and under s. 40 the superintendence of the Presidency in all points relating to the forces employed in it is vested in the Governor-General in Council. Madras Regulation VIII of 1817 is a regulation for expediting the trial of civil suits in which the Native officers and soldiers attached to regular corps on the military establishment of the Presidency of Fort St. George may be parties, and for giving to them certain facilities in the maintenance and recovery of their rights, claims, and interests. Madras Regulation XIV of 1832 is a regulation for extending such part of the provisions of s. 67 of the Act, 4 Geo. IV, c. 81, as relates to the penalties prescribed for purchasing clothes and other necessaries from soldiers throughout the provinces subordinate to the Presidency of Fort St. George. Section 73 of 3 & 4 Wm. IV, c. 85 (A.D. 1833), prescribes that the Articles of War for Native officers and soldiers are to be made by the Governor-General in Council, and s. 74 that any officer of the Company in India may be removed or dismissed by the Crown. India Act XI of 1856 contains provisions for apprehending and detaining European deserters from the land forces in the service of Her Majesty in India, and for punishing persons who aid and encourage such deserters. India Act XXV of 1857 is an Act to render officers and soldiers in the Native army liable to forfeiture of property for mutiny, and to provide for the adjudication and recovery of forfeitures of property in certain cases. Section 34 of 21 & 22 Vic., c. 106 (A.D. 1858), directs that regulations are to be made for admitting persons to be examined for cadetships in the Engineers and Artillery, and s. 38 that the removal of officers by Her Majesty shall be communicated to the Secretary of State in Council. Section 56 directed that the military forces of the East India Company should be deemed to be Indian military forces of Her Majesty and should be 'entitled to the like pay, pensions, allowances, and privileges, and the like advantages as regards promotion and otherwise, as if they had continued in the service of the said Company.' Section 57 relates to provisions for persons hereafter entering the Crown's Indian forces. Under s. 58 officers, &c., in the employ of the Company on the 2nd September 1858 were deemed to hold offices under the Crown. It was at the same time provided (s. 3) that the Secretary of State for India should have 'all such or the like powers over all officers appointed or continued under this Act as might or should have been exercised or performed by the East India Company.' India Act III of 1859 is an Act for conferring civil jurisdiction in certain cases upon Cantonment Joint Magistrates, and for constituting these officers Registrars of Deeds. Under s. 19 of the Indian Councils Act, 24 & 25 Vic., c. 67 (A.D. 1861), legislative measures affecting the army cannot be introduced without the Governor-General's sanction. Under s. 22 the Governor-General in Council cannot make any laws or regulations which repeal, or in any way affect, the provisions of the Acts for punishing mutiny and deserters in Her Majesty's army, or in Her Majesty's Indian forces, respectively, but subject to the provision contained in the Act, 3 & 4 Wm. IV, c. 85, s. 73, respecting the Indian Articles of War. Under s. 43 the Governor in Council of the Presidency cannot, except with the previous consent of the Governor-General, make or take into consideration laws or regulations affecting the discipline or maintenance of any part of Her Majesty's military force. The Act of Parliament, 26 & 27 Vic., c. 57 (A.D. 1863), consolidates and amends the Act relating to the payment of regimental debts and the distribution of the effects of officers and soldiers dying on service, and makes like provisions for the security and application of the effects of deserters and others, and of officers and soldiers becoming insane on service. India Act II of 1864 is an Act to make provision for the administration of cantonments. Madras Act I of 1866 is an Act to repeal Madras Act IV of 1865 and to make provision for

the administration of military cantonments in the Presidency of Fort St. George. India Act VII of 1867 is an Act to reduce the pecuniary penalty for purchasing from soldiers arms, ammunition, clothes and other articles. Section 25 of Madras Act VIII of 1867 contains the penalty for taking spirits into barracks or on board vessels of war. Under s. 14 of Madras Act II of 1868, troops, military officers and stores are exempted from the payment of tolls on roads and bridges when on their march or on duty. India Act V of 1869 is an Act to consolidate and amend the Articles of War for the government of Her Majesty's Native Indian forces. Under s. 19 (1) of India Act VII of 1870, the Court Fees Act, a power-of-attorney to institute or defend a suit when executed by an officer, warrant officer, or private of Her Majesty's army not in civil employment, is not chargeable with any court fee. Section 9 of India Act V of 1873 declares that the provisions of this Act (Government Savings Bank Act) do not apply to deposits belonging to the estates of European soldiers and deserters. India Act XIV of 1873 is an Act to provide for the security and application of the effects of officers and soldiers becoming insane on service, but not removed, put on half-pay, or discharged. 37 & 38 Vic., c. 61 (A.D. 1874), is an Act for granting compensation to officers of the Royal (late Indian) Ordnance Corps. India Act V of 1875 is an Act to remove doubts as to the rights and liabilities of certain native soldiers. Under s. 18 of India Act IV of 1879 troops have a preferential right over the public to conveyance by rail. 42 Vic., c. 8 (A.D. 1879), is an Act to make further provision for the registration of deaths, marriages, and births occurring out of the United Kingdom among officers and soldiers of Her Majesty's forces, and their families. Section 34 of India Act III of 1880 (Cantonments Act) declares that judicial notice is to be taken of the rules for the regulation of military cantonments. 44 Vic., c. 9 (A.D. 1881), is an Act to provide during twelve months for the discipline and regulation of the army. The Army Act of 1881, 44 & 45 Vic., c. 58, consolidates the Army Discipline and Regulation Act of 1879, and the subsequent Acts amending the same. 45 Vic., c. 7 (A.D. 1882), is an Act to provide during twelve months for the discipline and regulation of the army. 45 and 46 Vic., c. 79, is an Act to make provision for the arrangement of accounts between the Commissioners of Her Majesty's Treasury and the Secretary of State in Council of India in respect of certain home charges for Her Majesty's forces serving in India. Under s. 54 of India Act X of 1882, Code of Criminal Procedure, the police can arrest without warrant any person reasonably suspected of being a deserter from the army. Under s. 320 (g) persons in Her Majesty's army are exempted from liability to serve as jurors or assessors, except when, by any law in force for the time being, they are specially made liable to serve as jurors or assessors. Under s. 266 (i) of India Act XIV of 1882, the Code of Civil Procedure, the pay and allowances of persons to whom the Native Articles of War apply cannot be attached. Chapter XXXII relates to suits by and against military men. Under s. 1 of Madras Act I of 1884, the City of Madras Municipal Act, the military profession is exempted from the municipal tax on professions in the city of Madras. Under s. 154 gun carriages, ordnance carts or wagons and cavalry horses are exempted from municipal taxation, and under s. 174 troops proceeding on duty, Government stores, and military officers on duty are exempted from tolls. Similar provisions are contained in ss. 77 & 91 of the Madras District Municipalities Act, No. IV of 1884. Section 87 (3) of the Madras Local Boards Act, No. V of 1884, declares that no tolls shall be paid for the passage of troops on their march, or of military and Government stores or of military officers on duty. The law in detail is shown in Vol. II, App. LIV, under the heads "Enlistment," "Military Cantonments," "Military Courts of Request," "Military Debts," and "Military Men." The rules on the subject having the force of law are contained in foot-note [11] below.

346. FINANCIAL.—The sanctioned military budget estimate for 1883-84 (exclusive of the cost of stores from England) was Rupees 2,61,48,000, and the expenditure, Rupees 2,64,50,980.

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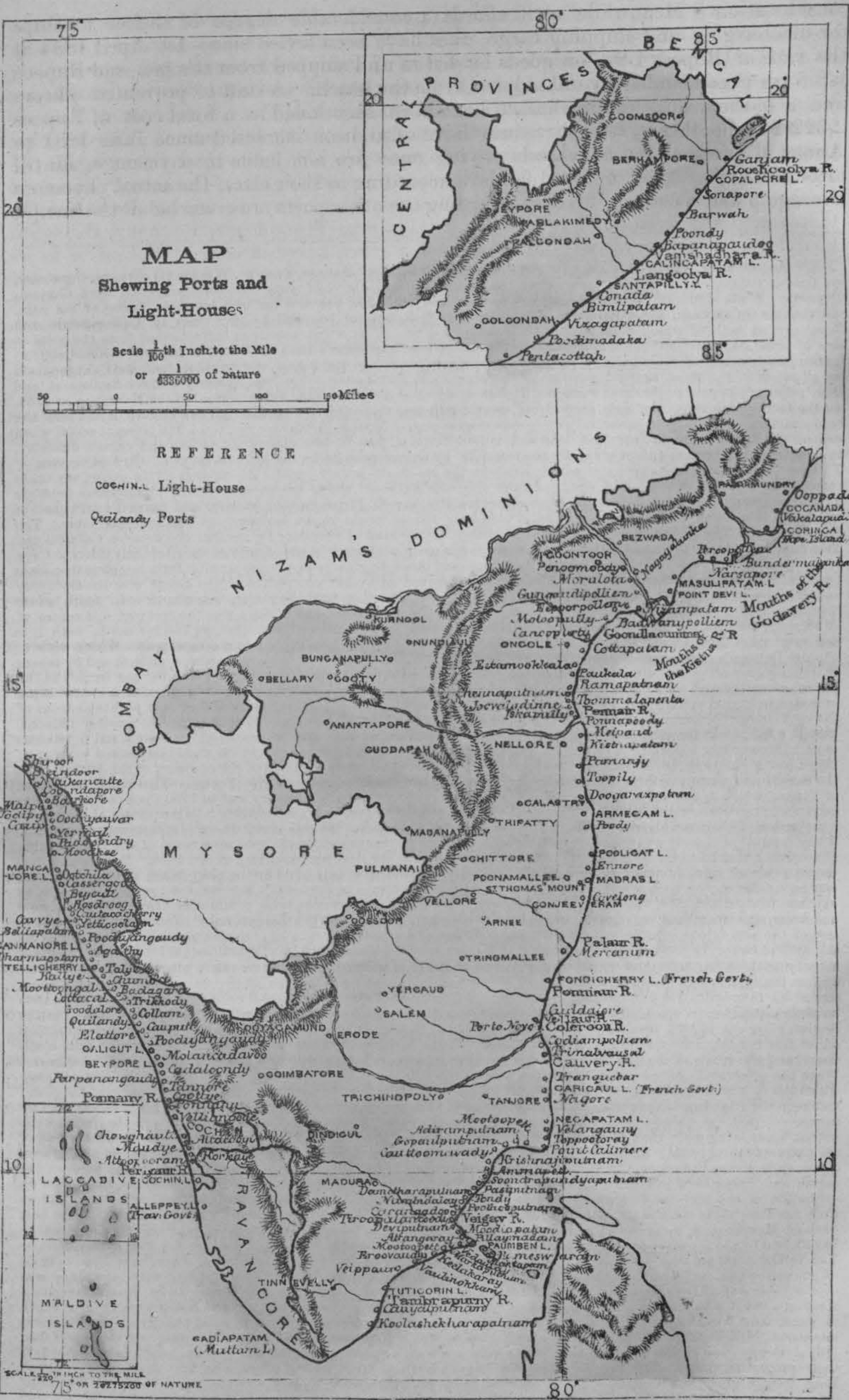
[11] MILITARY RULES HAVING THE FORCE OF LAW.—Under Act I of 1866, sections 17, 19, and 40 (Cantonments) the following have the force of law:—(1) Sections 17 and 19—Revised Cantonment Rules, 1876. (2) Amendment of Rule 63. (3) Section 40—Extension of Act to certain Military Cantonments—Military Notifications, Fort St. George Gazette, dated 2nd March 1866, 10th March 1868, and 7th March 1869.

MARINE.

347. INTRODUCTION.—Madras by virtue of its extended sea-board is essentially the maritime Presidency of India. It comprises the maritime districts of Ganjam, Vizagapatam, Godavery, Kistna, Nellore, Chingleput, Madras, South Arcot, Tanjore, Madura, Tinnevelly, Malabar, and South Canara, with 148 ports. The principal ports are Gopalpore, Bimlipatam, Vizagapatam, Cocanada and Coringa, Masulipatam, Madras (the chief port), Negapatam and Nagore, Paumben, Tuticorin, Cochin, Calicut and Beypore, and Mangalore, which are under Port Officers. Ganjam, Calingapatam, Porto Novo, Cuddalore, Tranquebar, Ponnany, Badagara, Quilandy, Tellicherry, and Cannanore rank next, being in charge of Conservators. The rest are minor ports, under Assistant Conservators. All the ports in this Presidency have been brought under the provisions of the Indian Ports Act, India No. XII of 1875. A complete list of ports is shown in Vol. II, App. LXIV, arranged geographically round the coast from east to west, and in the accompanying map.[1] A coast survey of the Presidency, from west to east, is given in Vol. II, App. No. XIII. Madras is in latitude 13° 5′ 10″ N., longitude 80° 17′ E. It enjoys a considerable trade, having railway communication with Bombay and Beypore and being in connection along the East Coast with the several ports in the south as far as Tuticorin. It has telegraph communication with every civilized country and is a port of call for the different steam lines running to Europe, the Straits of Malacca, Singapore, the Sunda Straits, and Burmah, besides the weekly coasting steamers. It has also steam communication with Delagoa Bay viâ Bombay and with the Australian Colonies, New Zealand and China viâ Colombo. The Madras Lighthouse bears North 65° East from the Observatory, distant 2¾ miles. The noon day and evening guns are fired at the fort by an electric current from the Observatory and by watching the time of the flash commanders of vessels may check the error of their chronometers. There are also an electric clock and a semaphore at the Sea Custom House, the latter dropping at 8 A.M. and 2 P.M. daily. The roadstead is open to all winds excepting those that blow from the westward off land, and there is generally a swell from seaward, which makes ships labour and roll. When the weather is unsettled with a heavy swell rolling in, the surf interrupts communication with the shipping. The months of April and May, and the period from 15th October to 15th December, are considered the bad weather seasons, notwithstanding which ships are found at this port at all times, as the gales experienced here are not frequent, and on the approach of bad weather ships can safely put out to sea and return to the anchorage when it clears up. There is an iron screw pile pier 1,000 feet long from high water mark, and 40 feet broad, with a T head 160 feet by 40 feet, by which means the landing and shipping of cargo are carried on safely outside the surf. Additional advantages were contemplated by the construction of the new harbour, which was intended to be an enclosed structure formed by running out two solid piers from the shore 500 yards north and south of the iron pier to lengths of 1,200 yards, or into 7½ fathoms water, turning at that point to form an enclosure with an entrance in the centre 550 feet wide. These piers enclose a space 1,000 yards long and 830 yards broad at a maximum depth of 7 fathoms of water. The area thus available is calculated to afford shelter to 13 ships of various sizes, ranging from 4,000 to 700 tons. The harbour walls or piers were completed in September 1881 and the harbour was then fully opened to the shipping. On the 12th November 1881 a storm occurred, which was disastrous to the harbour works, nearly the whole of the curved arms being destroyed. The reconstruction of the harbour is now under

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[1] SPELLINGS AUTHORIZED BY GOVERNMENT, OCCURRING IN MAP SHOWING PORTS AND LIGHTHOUSES.—Adirámpatnam, Ammápet, Anantapur, Árni, Badagara, Banganapalle, Bárkúr, Báruva, Bellary, Berhampore, Beypore, Bezváda, Bimlipatam, Calicut, Calingapatam, Cannanore, Cauvery, Chávakád, Chittoor, Cocanada, Cochin, Coimbatore, Coleroon, Conjeeveram, Coondapoor, Coringa, Cuddalore, Cuddapah, Dugarázpatnam, Erode, Ganjam, Godávari, Golgonda, Goomsur, Gooty, Gundlakamma, Guntúr, Hosúr, Ipurupálem, Iskapalle, Jeypore, Kálahasti, Kanuparti, Kásaragód, Kavváyi, Káyalpatnam, Kílakarai, Kistna, Kistnapatam, Kulasekharapatnam, Kurnool, Lángulya, Madanapalle, Madras, Madura, Mangalore, Masulipatam, Mutupet, Nagore, Nandyál, Narsápur, Negapatam, Nellore, Ongole, Ootacamund, Pálár, Pálkonda, Palmanér, Pákala, Pámban, Parlákimedi, Parpanangádi, Pennér, Periyár, Point Calimere, Pondicherry, Ponniár, Poonamallee, Porto Novo, Púdi, Pulicat, Púndi, Quilandi, Rajahmundry, Rámapatnam, Rámesvaram, Rushikulya, Salem, St. Thomas' Mount, Tanjore, Tánúr, Tellicherry, Tirupati, Tiruvannámalai, Tondi, Tranquebar, Trichinopoly, Tummalapenta, Tuticorin, Udipi, Vaippár, Vamsadhára, Vaigai, Vellár, Vellore, Vizagapatam, Yercaud.


MAP
Shewing Ports and
Light-Houses
Scale 1/100th Inch. to the Mile
or 1/6336000 of nature
50 0 50 100 150 Miles
REFERENCE
COCHIN L. Light-House
Quilandy Ports
CENTRAL PROVINCES
BENGAL
NIZAM'S DOMINIONS
BOMBAY
MYSORE
TRAVANCORE
LACCADIVE ISLANDS
MALDIVE ISLANDS
Ganjam
Rooskoolya R.
GOPALPORE L.
Sonapore
Barwah
Poondy
Bapanapaudoo
Vamshadhara R.
CALINGAPATAM L.
Langoolya R.
SANTAPILLY L.
Conada
Bimlipatam
Vizagapatam
Poodimadaka
Pentacottah
COOMSOOR
BERHAMPORE
JEYPORE
GOLCONDAH
Ooppada
COCANADA
CORINGA
Bunder malanka
Narsapore
MASULIPATAM L.
POINT DEVI L.
Mouths of the Godavery R.
Mouths of the Kistna
KURNOOL
BELLARY
GOOTY
ANANTAPORE
CUDDAPAH
NELLORE
ONGOLE
BEZWADA
GOONTOOR
Cottapatam
Ramapatnam
Pennair R.
Kistnapatam
Armegam L.
POOLICAT L.
Ennore
MADRAS L.
Covelong
Palaur R.
Mercanum
PONDICHERRY L. (French Govt.)
Ponnaur R.
Cuddalore
Porto Novo
Coleroon R.
Cauvery R.
Tranquebar
CARICAUL L. (French Govt.)
Nagore
NEGAPATAM L.
Point Calimere
PAUMBEN L.
TUTICORIN L.
Tambrapurny R.
Koolashekharapatnam
CADIAPATAM (Muttam L.)
TINNEVELLY
MADURA
DINDIGUL
TRICHINOPOLY
TANJORE
COIMBATORE
ERODE
SALEM
VELLORE
ARNEE
TRINOMALLEE
CHITTORE
CALASTRY
PULMANAIR
OOTACAMUND
Shiroor
Malpy
Mangalore L.
Cavvye
Cannanore L.
Tellicherry L.
Mahe
Quilandy
Calicut L.
Beypore L.
Parpanangaudy
Ponnany R.
Chowghaut
Cochin L.
Alleppey L. (Trav. Govt.)
SCALE 1/320th INCH TO THE MILE OR 20275200 OF NATURE
75°
80°
85°
20°
15°
10°

consideration. Meanwhile as it affords a considerable degree of shelter to ships for discharging and shipping cargo, dues have been levied since 1st April 1884 at the rate of Rupees 1-9-6 on goods landed at and shipped from the pier and Rupees 1-5-6 on goods landed on and shipped from the beach. A staff of preventive officers and a harbour dues establishment have been sanctioned at a total cost of Rupees 2,322-8-0 monthly. The port dues have also been increased since June 1881 to Annas 6 per ton, but as vessels paying once are not liable to payment again till after the expiry of 30, 60, and 90 days according to their class, the actual payments average 3 annas per ton. Notes regarding the other ports are given below the line.[2]

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[2] ACCOUNT OF THE PORTS OF THE PRESIDENCY OTHER THAN MADRAS, EAST TO WEST.—(1) *Ganjam, Gopalpore, and Calingapatam.*—Up to the first quarter of the present century, the chief ports on the eastern coast were Ganjam, Chicacole, Bimlipatam, and Vizagapatam, but Ganjam and Chicacole are now for such purposes names of the past, and though Bimlipatam holds its own as a port, yet Vizagapatam has had to give way to Calingapatam and Gopalpore, at both of which considerable trade is carried on. This would appear to indicate that from the point of view of trade conveniences of landing and shipping are of less importance than conditions of internal communication; for Ganjam is a comparatively quiet place, with a river where boats load and unload, whereas Gopalpore and Calingapatam are situated in the most exposed position of the coast. (2) *Bimlipatam.*—This was formerly a Dutch Settlement, and many relics of its past importance remain. It was stormed and its treasure taken away by the Mahrattas in 1754, but the factory dates from the early part of the seventeenth century. Since its rendition to the English, it has been the head-quarters of the large commercial enterprises carried on by Messrs. Arbuthnot and Co. The river, at which when seasons are favorable boats enter and load and unload in quiet, has of late shifted its mouth and caused difficulty. It is in contemplation to endeavour to fix the mouth in its former position by the aid of a groyne. (3) *Vizagapatam.*—This port is a place of importance, of which however the sea-trade is very small. At present all its export sea-trade comes into it from the south and west. As the site of a harbour, which has been proposed, Vizagapatam presents difficulties, one being the question of the backwaters, which would open into the harbour and cause it to silt; and in storm and inundation, to which the district is peculiarly liable, would render it dangerous and unmanageable. The construction of the Madras Harbour removes probably any ground of necessity for another one between Calcutta and Trincomalee. (4) *Cocanada and Coringa.*—Cocanada is the most interesting of the eastern ports. It is only thirty or forty years ago that this was looked upon by Sir A. Cotton and other Engineers as the proper site for a complete first-class harbour, but the sudden change in the conditions which ensued after the completion of the anicut over the Godavery at Dowlaishweram, caused a suspension of opinions, and after a short interval the project was abandoned. Ships before that time used to anchor to the southward of what is now Cocanada river, and Coringa was the real port and centre of all shipping enterprise. The silting of the great Bay has year by year driven the anchorage further north, until it is now four miles from Cocanada, and a new lighthouse has been erected as a guide into the new port. With a view to improve Cocanada, the course of the river, which before led in the direction of Coringa, has been altered, and by means of training groynes carried directly into the Bay. This step has secured many advantages, but a bar has formed at the mouth, as is the case in all rivers opening directly into the sea on the eastern coast. The groynes are now being extended in length, and curved at the extremes towards the north-east, so that the ebb and flow may pass in and out of the river instead of across its mouth as before, and it is hoped that shortly the difficulties may be sensibly reduced, though a fair depth for cargo boats will be the utmost attainable, as the roads where the ships lie in 5 and 6 fathoms is still three or four miles off. The inundations that have occurred at Coringa, and which must be expected to recur at times, are a bar to improvements of this nature and the recent enormous changes of the contours of the land at both the eastern and western mouths of the Godavery, make it difficult to forecast events. (5) *Yanam.*—The small French town of Yanam, which is now seven or eight miles inland on a broad reach of the Godavery, was in 1750 a sea-port at the very entrance of the western branch of the river. (6) *Narsapore.*—Another branch of the Godavery falls into the sea at Narsapore, a projection of the coast about 50 miles to the south-west of Cocanada. At this mouth there is a dangerous bar, which, if any method of cheaply and effectively removing bars could be discovered, would open up a reach of the river capable of receiving very many large vessels. (7) *Masulipatam.*—This is the next port occurring on the coast. Masulipatam was once a place of great commercial importance. In 1750 ships of 900 tons could find shelter in the harbour, and there was no similar one between it and Cape Comorin. At present, however, the district between the town and the sea is an expanse of sand and mud, the whole area preserving little above one common level, continually exposed to storm, wind and wave, and the inundation of cyclones, and the accommodation for ships has disappeared. The Dutch took possession of the site in the seventeenth century, and constructed a spacious fort to be at once a protection from storms by sea and enemies by land. In due course this fort reverted to the English, and Masulipatam became an important military station, but unfortunately about that period no great storm is known to have taken place and its great value against inundation was unappreciated. Every precaution had been taken by the Dutch to prevent the walls being sapped by inundation, the ditch was all paved, and the quality of the work throughout even now in its decay commands universal attention. Certain changes in the base of military operations, combined with an outbreak of cholera in the English regiment in 1833, resulted in the withdrawal of the English troops, and the destruction of the fort was decided on for fear it might fall into the hands of the Nizam. Previous immunity from inundation had engendered a false confidence, and the ruins of the fort became from that time forward stored with goods and peopled with inhabitants. When the celebrated cyclone of 1st November 1864 occurred both were overwhelmed in one common destruction, from which the fort would probably have saved them. Since that visitation the native merchants have abandoned the place, and keep their produce at the pettah: English merchants have purchased some of the old barracks for godowns, and an expensive quay has been formed, and a large sum of money spent in restoring the raised road from the fort to the pettah, a cut being made from this lock to the fishing village of Gilacaladindy to free the canal and obviate the use of the narrow natural creek. It is recorded that Mr. Topping, the Astronomer, about the year 1794 received a large sum of money from the Government of the day to carry out a scheme of dykes and dams for improving the land between the pettah and Chinnakara and bringing it under cultivation. At his death, however, the whole was abandoned, and no utilization of the land has been since attempted. (8) *Nizampatam.*—Of the ports between Masulipatam and Madras little need be said; there is not much trade conducted, and what there is is conducted by native vessels. In the best days of Masulipatam, there was a very large port, Nizampatam, in Goontoor in a sheltered position at the head of the bay formed by the deposits at the mouth of the Kistna, but it has ceased to exist. (9) *Kottapatam and Kistnapatam.*—The Nellore ports are very favorably situated for the development of trade in that district. They have the requisite of smooth water, and are conveniently placed between the sea and the canal. Two or three years ago there was considerable export from Kottapatam to Calcutta of castor-seed and other produce by British India Steam Navigation steamers, but it is believed that it no longer continues. Kistnapatam port and river opposite Nellore, with a good depth of water from 9 to 11 feet on the bar, are favorably placed, and many native vessels lay up in the river during adverse monsoons. Off Kistnapatam there is also a mud bank to which doubtless the stillness of the water on the bar is due. (10) *Armegam and Poolicat.*— Both these ports offer some shelter, owing to the sand banks, which have formed off their projecting points. The first is called Blackwood's Harbour from a naval officer who first drew attention to it. Both have a great disadvantage—that if resorted to by sailing ships in stormy weather, when the wind invariably sets in from a northerly direction, they have no means of escape to the south. Poolicat was a large factory and settlement for a very long period, and seems to have escaped the dangers of war incident to Madras, Cuddalore, and

These, while giving some account of the present state of the ports, will also serve to show the extensive periodic changes to which an important commercial sea-board is subjected. A history of storms on the Madras coast is given in Vol. II, App. XLIV. The coast lights round the whole coast are 29 in number as shown in Vol. II, App. XIV, but of these only 20 are in British territory and so under the department. The number of signalling flagstaves at the different ports within the Presidency is 23. Besides the departmental lighthouses there is a tower, 90 feet high, with dioptric light of the second order, built by Mr. Crawford at Alleppey. A new lighthouse column with a first-class light has been erected on Cadiapatam Point, to warn ships off the Crocodile Rock. The lighthouse erected on Hare Island for Tuticorin was improved in 1874 and a fourth order dioptric light fixed to it. There is a light in good order at Paumben. There is a fixed white light at Negapatam, two French lights at Caricaul and Pondicherry, a flashing catadioptric light on the north esplanade at Madras, a white fixed light at Poolicat, a flashing white light at Armegam, a white light at Point Divy, and a white light on Masulipatam flagstaff. On Hope Island, at the mouth of the Godavery a fixed white light is exhibited. At Cocanada there is a revolving light, and three white fixed lights to the north, one on a hill 150 feet high, and three-quarters of a mile from the sea, at Santapilly, another at Calingapatam and the third at Gopalpore.

348. LAW.—The Marine Acts, viz., Ports, Merchant Seamen and Shipping, Passengers, Boat, Registration of Ships, Quarantine, Marine Police, &c., are very numerous, and are shown in the following list:—India Act X of 1841, Registry of Vessels; India Act IV of 1842, Boat Act; India Act IX of 1846, extending Boat Act to outports; India Act V of 1850, Registry of Vessels; India Act XI of

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Masulipatam. It has even now numerous good houses and interesting monuments, but its trade has completely decayed. Poolicat was on the seashore during its term of prosperity, but the sandspit so constantly observed as the effects of rivers and backwaters is now present, and the town is a mile inland. The town of Coromandel, from which the whole coast is named, adjoins Poolicat, and is the head-quarters of the boat-building industry, which supplies the canal. (11) *Covelong.*—Covelong, a large salt depôt at present, was once a place of importance. Its fort was demolished during the wars of the French and English. A large church and some buildings still remain, and a bomb-proof building in the fort has for very many years been converted into an almshouse endowed by and named after DeMonte, who, towards the close of the last century, was the head of the house of DeMonte, Arbuthnot and Co. (12) *Sadras.*—Passing south of Madras, Sadras, a few miles south of Seven Pagodas, was formerly a very important fort, with a large trade, of which, however, few or no relics remain. (13) *Pondicherry.*—Pondicherry, the capital of the French Settlements in India, is a handsome thriving town. It is connected by railway with the South Indian Railway. It has an iron screw pile pier, which has recently, since the construction of the railway, been doubled, doubtless with a view to increased traffic, but this does not as yet offer. (14) *Cuddalore.*—This town is a railway station of the South Indian Railway, but its trade exhibits no improvement on that account. Plant and stores for the railway are landed there when necessary. It is a place of many memories connected with the struggles of the English for mastery in the south of India, and within two miles of it stood Fort St. David so long the seat of the Company's Government. As a port, the bar at Cuddalore is sometimes very troublesome, but such business as there is is never interrupted, and dhonies of considerable tonnage lay up inside the river in monsoons. General history has treated so concisely of the ground in this neighbourhood, that it is possible to entertain an accurate knowledge of the changes that have taken place since the middle of the last century. Fort St. David and Fort Cuddalore then both stood upon the seashore, and the river, which was of large dimensions, opened out under the walls of the former fort. Now the ruins of Fort St. David are a quarter of a mile inland, and the river mouth has closed up, merely opening for short intervals on a very small scale during great freshes. Fort Cuddalore is half a mile inland, and a long wide sand spit reaches all along the face of the sea. The rivers to the north and south of Cuddalore, the former being the St. David's river, have united, and, washing the base of old Cuddalore, discharge themselves into the sea at a common mouth at present half a mile south of the town, but moving north and south according as either river gains a temporary pre-eminence. This is what obtains at Mangalore on the west coast, and there is no reason to doubt that that fort like these other two was on the sea-face, as hereafter mentioned. (15) *Porto Novo.*—This is a place of some local importance; it is at the mouth of the Vellaur river, which is crossed above the town by a large high level bridge, offering some obstacle to navigation. A convenient quay has been constructed from port funds, the tolls of which have reimbursed the fund, and provide for its upkeep and establishment. South of Porto Novo, about four miles, is the present situation of the chief mouth of the great river Coleroon. There is no port here, but the river is mentioned with a view to the plans frequently made for the construction of harbours and removal of bars on the eastern sea-board. In 1749, during the wars of the English in Tanjore, the river opened into the sea with very small natural obstruction, about four miles south of its present site. The bar was not considered formidable, and it was thought that it might be removed at small trouble and expense when the broad river inside would offer secure shelter for the largest vessels. In the absence of any such shelter between Masulipatam and Tuticorin the possession of Devicottah, which was the name of the fort that guarded the entrance, was considered of the highest importance, and a large force under the command of Major Lawrence, in which served Lord Clive, then a Lieutenant, proceeded against it. Now a few ruins mark the site of Devicottah, and the contemplated harbour is a waste of sand. (16) *Cauveryputnam, Tranquebar, Caricaul, Nagore and Negapatam.*—From Devicottah to Negapatam, and even round Cape Calimere to Adiramputnam, the country is intersected by streams and rivers, all bringing down silt to the sea, and in time altering the formation of the coast. The Cauvery and the Coleroon, which both unite above Trichinopoly, are the main affluents; the others are tributaries. The rich country of Tanjore has furnished trade for many ports in this district. Cauveryputnam, Tranquebar, Caricaul, Nagore and Negapatam, all placed at the mouths of rivers, have each had their period of prosperity; but all are now at a disadvantage owing to the changes of coast line. (17) *Negapatam.*—This is a large city and port, a terminal point of the South Indian Railway, which, however, does little more at present than land its own material, stores, and machinery. There is only one river here to deal with, but that runs parallel to the sea, with the usual sandspit between. The north bank of the river has been revetted at considerable cost, and expensive efforts have been and are being made to improve the condition of the port inside the bar, but the tendency to silt is entirely at the town side of the river, and consequently the quay can rarely be approached

1850, Registry of Vessels; India Act XIII of 1854, Straits Lights Dues Merchant Shipping Act, 1854; Acts 18 and 19 Vic., cap. 91 (1885), amending Merchant Shipping Act, 1854; Acts 18 and 19 Vic., cap. 119 (1855), the Passengers Act; India Act I of 1859, Indian Shipping Act; India Act II of 1860, extending the Passengers Act, 1855, to British India; 25 and 26 Vic., cap. 63 (1862), the Merchant Shipping Amendment Act; 26 Vic., cap. 51 (1863), Passengers Act Amendment Act; Mad. Act V of 1863, Madras Pier Act; 31 and 32 Vic., cap. 129 of 1868, Registration of Ships; 32 Vic. (1869), Merchant Ship Act (Colonial); India Act I of 1870, Quarantine Rules; India Act IV of 1869, amending Madras Boat Act IV of 1842; 34 and 35 Vic. (1871), Merchant Shipping Act; India Act II of 1872, Port Rules; 36 and 37 Vic., cap. 85 (1873), Merchant Shipping Act; 35 and 36 Vic. (1872), Merchant Shipping Act; India Act II of 1873, amending the Madras Boat Act IV of 1842; Chain, Cables and Anchors Act, 1864 to 1874; India Act XII of 1875, Indian Ports Act; 39 and 40 Vic. (1876), Merchant Shipping Act, 1854 to 1876; India Act VIII of 1876, Native Passenger Ships; India Act XIII of 1876, Indian Merchant Shipping Act; India Act I of 1877, amending the Madras Boat Act IV of 1842; 42 and 43 Vic., cap. 72 (1879), Shipping Casualties Investigation Act; India Act VII of 1880, Indian Merchant Shipping Act; 43 and 44 Vic., cap. 72 (1880), Merchant Shipping Act; 43 and 44 Vic., cap. 43 (1880), Merchant Shipping Act; 46 and 47 Vic., cap. 30 (1883), Merchant Shipping Act; India Act I of 1881, Marine Police Act; India Act IV of 1881, Madras Port Dues Act; India Act XVI of 1881, to remove or destroy obstructions in fairways; Mad. Act III of 1883, to make provision for the levy of port dues within the port of Cocanada; India Act XVII of 1883, to amend Native Passenger Ships Act, 1876; India Act VI of 1884, the Inland Steam Vessels Act; India Act VII of 1884, the Indian Steam Ships Act. The law is shown in detail under the heads of " Coast

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for the purposes of landing or shipping goods, while the opposite bank, where deep water obtains, is unavailable, as the trade would still have to cross the river. (18) *Seaward extensions of the Eastern Coast.*—Before proceeding to the west-coast ports, the seaward extensions of the eastern coast may be considered in one view. The projection of Cape Calimere is evidently due to the deposits thrown out by the Tambrapurny and tributaries and of the Cauvery, to the south of which deposits are dispersed and formed into vast shoals by the strong currents through Palks' Straits and the Gulf of Manaar. Northward of Calimere the Cauvery and Coleroon keep up the extension of the coast towards the sea and shallow the water to a considerable distance out. The projection at Point Divi from Nizampatam to Masulipatam is directly due to deposits from the delta of the Kistna, while the larger projection at Coringa is owing to the still larger deltas of the Godavery, the operations of both rivers being still in active progress. The seclusion of the Chilka lake from the sea and the projection at False Point and Cuttack is due to the Mahanuddy, and leaving the Madras Presidency it may be pointed out that the Sunderbunds are due to the floods of the Ganges and Hooghly, and the corresponding banks opposite Rangoon to the Irawaddy and its tributaries. Of minor littoral projections which intercept the monsoon sea-currents, the effect is equally marked; for instance at Poolicat and Armegam, where slight obstruction offers, sand banks have formed in the north-east direction, driven by the southerly or more powerful current, and bays are cut out on the north shore. (19) *Quilon.*—Quilon, in Travancore territory, was in former times a port of great importance, and an artificial harbour will, it is understood, be shortly constructed, for which there are great facilities. (20) *Cochin.*—No other place of any significance appears previous to Cochin. This was formerly a small place on the bank of a river, but in the year 1341 certain changes took place in the large backwater between the sea and the Western Ghauts, and whether from cyclone winds or earthquake, or other cause, not now traceable, the pent waters effected a sudden and enormous outlet, and formed the present river and harbour. The island of Vypeen was created at the same time. The traditions of Cochin show that violent and uncertain changes have always been experienced in this neighbourhood in exceptional south-west monsoons. At times the sand is driven out and the river is cleared; at others the bar is insuperable. All along this portion of the coast important changes are quoted. Islands and lakes have been formed; towns and harbours have risen and had their day of prosperity, but have now so completely retired that after the comparatively small interval of five centuries, their former sites and names are not recognizable. Cochin itself was built in the tenth year after Vasco de Gama arrived at Calicut, and its advantages being very apparent, the large colonies of White and Black Jews, and other important portions of the community quitted Cranganore, which from time immemorial had been the head-quarters of trade, and the most convenient harbour north of Quilon. At Cranganore the river mouth soon filled up, and it is now some way inland. (21) *Beypore.*—Beypore is alluded to in old records as a noble harbour, so much so that Hyder Ally and his son Tippoo selected it towards the close of the last century for the head-quarters of their large coast trade. At present it is a very unimportant place. (22) *Calicut.*—This was once a harbour created and supported by the Coote reef, which extends southward and westward of the grain godowns and present lighthouse. Ships used to lay up here, and though all vessels trading on the west coast were small in proportion to some of those now in use, yet the number of men they used to carry, and the cargoes they disposed of prove that they were of considerable size. Now in the south-west monsoon all native craft leave the place. (23) *Quilandy.*—Quilandy next in rotation, was a large flourishing port and town, of which many substantial buildings remain. It had also the advantage of a mud-bank, resembling those at Alleppey and Naracal. Towards the close of the last century, the port was suddenly destroyed by a cyclone. The East India Company's ship 'Morning Star' had lain there during the south-west monsoon, as was a constant practice in those days, and was waiting to embark some of the Company's chief officials to convey them to Calcutta. A cyclone in the Bay of Bengal occurring at the October break of the monsoon, passed across the peninsula, and reached Quilandy. The mud-bank entirely broke up, the ship was driven ashore and lost, and the conditions of the river mouth were so changed that the port was ruined. Quilandy was protected from winds from north-west round to south-south-east by the Cottar reef and promontory. (24) *Cannanore and Tellicherry.*—These being on rocky formations have undergone little change, but a large port named Belliapatam under the shelter of Mount Delly has disappeared owing to the changes in the river mouth. (25) *Mangalore.*—Mangalore formerly occupied a prominent position in the defended portion of the East India Company's territories. It must have been on the seashore as in the present situation of the old fort and the Sultan's battery no artillery of that date could have reached ships in the offing, nor could any reply from the ships have injured the inhabitants.

Light Dues," "Indian Ports Act," "Light-house," "Madras Pier," "Madras Ports," "Madras Port Dues Act," "Madras Port Police Act," "Ports," "Port Fund," "Port Officers," and "Vice-Admiralty Court" in Vol. II, App. LIV. The rules having the force of law are equally numerous, and are shown in the next note.[3]

349. CONSTITUTION OF THE MARINE DEPARTMENT.—The Marine Department [4] is on the same footing as the Police, Jails, and other executive departments, which have operations throughout the Presidency; by title however the head of the department is only Master Attendant of the Port of Madras, which does not accurately indicate his functions. The head of the Marine Department is the adviser of Government on all marine matters, and is vested with the control of the marine expenditure pertaining to his own department, or incurred on account of freight and passage in connection with the military and civil officers. It is his duty to exercise a general superintendence over vessels engaged for the conveyance of Government troops, passengers, stores, specie or mails. He is Registrar-General of Shipping for the Presidency, and Superintendent of Marine for the whole seaboard, and he has frequently to visit the out-ports, and to report on local improvements or claims requiring personal investigation. The supervision and

[3] MARINE RULES HAVING THE FORCE OF LAW.—*Rules under the Registry of Ships Act.*—Under Act X of 1841, sections 2, 3, and 7, the following have the force of law:—(1) Section 2, Ports of Registry—Notifications, Fort St. George Gazette, dated 3rd February 1866 and 25th February 1879. (2) Section 3, Appointment of Registrars—Notifications, Fort St. George Gazette, dated 10th June 1873, 3rd August 1875, 14th August 1877, 5th November 1878, 26th November 1878, 29th June 1880, 20th November 1880, 23rd November 1880 and 15th February 1882. (3) Section 7, Offices appointed by Government to measure, &c., ships prior to grant of Certificate of Registry. 2. *Rules under the Navigation Laws Act.*—Under Act XI of 1850, section 3 (amending Act X of 1841), the following have the force of law:—(1) Rules for measuring native craft—Marine Notification, Fort St. George Gazette, dated 8th January 1878. 3. *Rules under the Merchant Seamen Act.*—Under Act I of 1859, sections 8 and 10, the following have the force of law:—(1) Section 8, Appointment of shipping masters—Notifications, Fort St. George Gazette, dated 13th May 1859, 3rd April 1877, 23rd February 1881. (2) Section 10, Rules and Course of Examination for Masters and Mates of vessels. 4. *Rules under the Quarântine Act.*—Under Act I of 1870, section 1, the following have the force of law:—(1) Rules—Marine Notifications, Fort St. George Gazette, dated 1st October 1872, 4th October 1873, 29th July 1879. (2) Port Surgeons—Marine Notifications, Fort St. George Gazette, 7th September 1875. 5. *Rules under the Ports and Port Dues Act.*—Under Act XII of 1875, sections 5, 7, 8, 38, 45, and 46, the following have the force of law:—(1) Section 5, Extension to certain Ports and Port limits defined—Marine Notifications, Fort St. George Gazette, dated 28th June 1881 and 1st November 1881. (2) Section 7, Rules for the guidance of masters of vessels entering the Port of Madras—Marine Notification, Fort St. George Gazette Extraordinary, dated 23rd February 1877. (3) Amendment of Rule 1 in the above Rules—Marine Notification, dated 15th August 1879, Fort St. George Gazette, dated 19th August 1879. (4) Regulating entry and departure of vessels using Madras Harbour and penalties for infringement—Fort St. George Gazette, dated 1st February 1881. (5) Port Rules and Cargo Boat Registration fees prescribed—Fort St. George Gazette, dated 28th June 1881. (6) Rules for the exhibition of lights for ships at anchor—Marine Notification, Fort St. George Gazette, 13th November 1877. (7) Section 8, Appointment of Conservators of Ports—Fort St. George Gazette, dated 28th June 1881. (8) Section 38, Extension to the Port of Madras scale of pilotage fees for Madras Harbour—Marine Notification, dated 6th January 1882; Fort St. George Gazette, dated 18th January 1882. (9) Section 45, Levy of Port Dues on vessels entering the Harbour of Madras—Marine Notification, Fort St. George Gazette, dated 16th March 1881. (10) Sections 45 and 46, Maximum Port Dues, with conditions of levy fixed and exemptions declared—Marine Notifications, Fort St. George Gazette, dated 28th June 1881 and 26th July 1881. 6. *Rules under the Native Passenger Ships Act.*—Under Act VIII of 1876, sections 6, 13, 19, 22, 46, and 47, the following have the force of law:—(1) Sections 6 and 47, Ports of Embarkation and Debarkation and Appointment of officers—Marine Notifications, Fort St. George Gazette, dated 30th July 1878, 17th March 1878, and 9th March 1880. (2) Section 13, Appointment of officers to grant certificates of seaworthiness—Marine Notification, Fort St. George Gazette, dated 30th July 1878. (3) Sections 19 and 22, Space required for every passenger—Fort St. George Gazette, 15th February 1882. (4) Section 46, Addition to scale of provisions—Notification (Public), Fort St. George Gazette, dated 7th June 1881. 7. *Rules under the Merchant Shipping Act.*—Under Act VII of 1880, sections 7, 11, 14, 23, 24, 54, 68, 69, 73, 75, 81, 82, 7 and 31, the following have the force of law:—(1) Sections 7, 11, 14, 23, 24, 54, 68, 69, 73, 75, 81 and 82—Notification under above provisions (Marine), Fort St. George Gazette, dated 25th May 1880. (2) Scale of Provisions. (3) Section 23, Madras Court of Survey Rules—Marine Notification, Fort St. George Gazette, 13th September 1881. (4) Sections 7 and 31, Scale of Fees for Survey. (5) Section 54, Local authority—Notification, Fort St. George Gazette, dated 16th November 1881. (6) Section 68, Rules for Examination of Ship Surveyors—Marine Notification, Fort St. George Gazette, dated 27th June 1882. 8. *Rules under the Madras Port dues enhancement Act.*—Under Act IV of 1881, section 2, the following has the force of law:—Section 2, Increase in rate of port dues in Madras Harbour—Marine Notifications, Fort St. George Gazette, dated 16th March 1881 and 1st June 1881. 9. *Rules under the Madras Pier Act.*—Under Act V of 1863, Sections 2 and 14, the following have the force of law:—(1) Section 2, Levy of tolls—Marine Notification, dated 9th June 1875; Fort St. George Gazette, dated 15th June 1875. (2) Section 14, Bye-laws—Marine Notification, dated 14th February 1865, Fort St. George Gazette, dated 14th February 1865. 10. *Rules under the Pier Act Amendment Act.*—Under Act VII of 1871, section 7, the following has the force of law:—Section 7, Extension to Calicut Pier—Marine Notification, Fort St. George Gazette, dated 24th September 1878. 11. *Rules under the Madras Boat Act Amendment Act.*—Under Act II of 1873, section 2, the following has the force of law:—Section 2, Notification declaring the number of passengers and quantity of goods which should constitute a boat-load—Marine Notification, Fort St. George Gazette, dated 18th November 1873. 12. *Rules under the Madras Harbour Dues Act.*—Under Act VI of 1882, sections 5, 6 and 7, the following has the force of law:—Sections 5, 6 and 7, Notification authorizing the levy of harbour dues and charging godown rent on goods—Marine Notification, Fort St. George Gazette, dated 5th February 1884.

[4] SKETCH HISTORY OF THE MADRAS MARINE DEPARTMENT.—As far as can be ascertained, the Marine Department was connected with the Board of Trade Office of the Madras port in the earlier periods of the Company. It was afterwards known as the Marine Board, which consisted of a President (who was a Member of Council) and three members, one of whom was the Master Attendant, with a Secretary. This body was maintained till the year 1858, when it was abolished, and an officer called the Superintendent of Marine was appointed to perform its duties. This designation was changed in 1868, when the offices of Superintendent of Marine and Master Attendant were amalgamated and placed under one head, namely the Master Attendant; but though thus united, each department continues to the present day to work independently, the former being the administrative and the latter being the local executive branch.

control of marine expenditure and accounts and the administration of the Port Funds of the different ports (148 in number) are vested in him. He is the officer appointed to collect the Madras Harbour dues under the provisions of Act No. VI of 1882. In addition to the above duties he has to recover the value of Government stores landed, damaged, or short, to pass Government freight and passage bills, transport-hire bills, bills for fitting up transports, boat-hire bills, and charges connected with shipping on account of Government, checking them with Charter Parties, Contracts, Regulations, &c. The audit obtaining in the Marine Department forms a part of the general system of audit obtaining in the Presidency, working in concert with other local Audit offices, viz., Accountant-General, Commissariat, Ordnance, Medical, Clothing, and Public Works. The portion of the Master Attendant's office which deals with marine matters as a department is styled Master Attendant's Office, Administrative Department. To assist him in his duties in this capacity he has one assistant styled First Assistant Master Attendant. The special duties of the Madras port are conducted by a Deputy Master Attendant. He is virtually Port Officer and Conservator, and is also Superintendent of Mercantile Marine, Examiner of Navigation and Seamanship, and Marine Storekeeper. He superintends the Seamen's Bank and the Sailors' Home. He has also to deal with floatsam and jetsam under the Receiver of Wrecks. Besides this, there is the boat system, consisting of some 175 boats and their crews (1,656 men and 100 boys), each one having to be regularly examined, licensed, and the crews registered by name. Boats are supplied by him for the public service. He has to enforce obedience to the Port Rules, to berth vessels as required, to carry out the executive duties of transport officer, and attend to the embarkation and disembarkation of troops. He has to carry out the provisions of the Native Passengers Ships Act and the Quarantine and Sanitary Regulations, and to attend to the executive duties connected with the Madras Harbour. A Second Assistant Master Attendant is maintained chiefly on account of Imperial services, as Agent for landing and shipping Government consignments to the various departments. The cost of his establishment is debited to Provincial and not to Port Funds, as it is not maintained for any duties connected with the port. The duties of out-port Masters Attendant and Conservators are similar to those of the Deputy Master Attendant at Madras. They are required to enforce obedience to all port rules, and see that the provisions of the Conservancy, Passenger and Merchant Shipping Acts, Imperial and Indian, are properly observed. They enforce quarantine regulations, and by virtue of their office are Government Surveyors of Shipping. They sit also as nautical assessors in Courts of Inquiry held with reference to shipwrecks, and are Landing and Shipping Agents for Government consignments. Some of these officers are Magistrates of the first or second class and Justices of the Peace, their functions in this respect being as a rule confined to the trial or adjudication of offences against maritime law; though in some instances they have also to deal with criminal cases in which European British subjects are concerned. The 20 coast lights are in charge of 7 Superintendents at the principal lights and 11 Assistant Superintendents or Head Light-keepers at the smaller lights, besides 67 Light-keepers. Each signalling flagstaff has an establishment. The Madras Port and Harbour Committee has been formed to advise Government on matters relative to the administration of the port and shipping. It is constituted at present of three representatives of the Chamber of Commerce, two members of the Trade Association, a member of a leading mercantile and banking firm, the Collector of Madras, the Superintending Engineer, Presidency Circle, the Commissioner of Police, the Master Attendant, the Harbour Works Engineer, and the Government Solicitor. The Collector of Madras is the Chairman, and the Master Attendant acts as secretary. The non-official members receive a fee of Rupees 20 each for attendance at every meeting.

350. STATISTICS OF THE MARINE DEPARTMENT.—The annual expenditure on account of marine establishments and lights, &c., is Rupees 3,38,527 and the Port Fund receipts amount to Rupees 4,50,340, giving an excess in receipts of Rupees 1,11,813. The total balance at the credit of the Port Fund at the end of the year 1883-84 was Rupees 8,76,262. The Port establishments cost about Rupees 1,47,195 annually, and the light establishments Rupees 29,560. The upkeep of the pier, the

charges of the steam tug "Madras," the expenses of the steam dredge at Cocanada, Public Works charges, and other items under the head of contingencies make up the difference of Rupees 1,61,772. The receipts comprise chiefly port dues, which amount to Rupees 3,38,683, and the rest is made up by pier collections, Harbour Master's fees, pilotage, and floatsam and jetsam, shipping office and registry of vessels, fees, and other miscellaneous items. The port dues collected at out-ports of this Presidency amounted in the official year 1883-84 to Rupees 2,08,891. The table in Vol. II. App. LXIV shows the amount of the port dues collected at each port. On the other hand the total value of the trade of the out-ports of the Presidency stood in 1883-84 at Rupees 12,49,38,840. Another statement in Vol. II, App. LXIV gives the value of the exports and imports of each port with the percentage which the value of the trade of each port bears to the value of the trade of all ports. The actual comparison of the tonnage at the three Presidencies and British Burmah was for a recent year as at foot.[5] It will be seen that the tonnage of Madras ports is more than half in excess of those of Bengal, about one-fifth in excess of Bombay, and about three-fourths in excess of Burmah. The vessels belonging to the Government are shown at foot.[6]

351. TINNEVELLY CHUNK AND PEARL FISHERIES.—The chunk and pearl fisheries in this Presidency are connected with the Marine Department, inasmuch as they are under the superintendence at present of the Port Officer at Tuticorin who is also Superintendent of Pearl Fisheries; they are treated however as a branch of revenue and are administered by the Revenue Board. The Tinnevelly chunk or conch-shell fishery was some years ago carried on under Government management, the shells being sold to private persons who exported them to Bengal. Afterwards a change was made in the management, and the right of fishery was sold for a term of years. This plan was found to be undesirable, and in 1861 a system of licenses was introduced, which continued up to 1876, the annual revenue realized being between Rupees 4,800 and 6,000. Since 1876 the fishing has again been conducted under Government management. The net profit to Government during each year since 1876 and the prices obtained for 1,000 shells in good

[5] TONNAGE OF DIFFERENT PROVINCES.

—	Bengal.	Bombay.	Madras.	British Burmah.
Foreign	2,037,340	1,649,063	1,177,337	1,293,031
Coasting	1,425,367	5,151,517	6,840,760	1,238,125
Total ...	3,462,707	6,800,580	8,018,097	2,531,156

[6] VESSELS BELONGING TO THE MADRAS GOVERNMENT.

Details of vessels.	Tonnage of each vessel and horse-power of engines if a steamer.	Number of officers.	Number of men.	Remarks.
1	2	3	4	5
SEA-GOING VESSELS.				
Screw Steamer 'Margaret Northcote.'	Tonnage 60, horse-power 30 nominal.	...	11	
Steam Tug 'Madras'	Tonnage 197, horse-power 150 nominal.	3	19	
Steam Launch 'Empress' ...	$7\frac{1}{2}$ tons	...	......	
Schooner 'Edith'	12 "	...	......	No permanent crew employed.
Boat 'Pearl'	15 "	...	......	Do. do.
RIVER-GOING VESSELS.				
Steam Dredge	......	1 superintendent.	13	Includes dredging expenses, wages, and contingencies.

condition are given below.[7] The divers were paid during those years at Rupees 20 for 1,000 shells and the tight and wormed shells fetched between 10 and 20 rupees per 1,000 to Government. The low profit in 1879-80 and 1880-81 was alleged to be due to the divers having deserted for employment in the more lucrative pearl fishery at Ceylon. The pearl banks on the Tinnevelly coast are of very ancient origin. The old head-quarters were at the Ramnaud promontory, but for the last two centuries the head-quarters have been at Tuticorin, ninety miles north-east of Cape Comorin. In 1882 the Tuticorin pearl fishery contributed about Rupees 1,30,000 to the revenue, and in 1830 the yield was worth about Rupees 1,00,000. Between this and 1861 there were no fisheries, as the beds seemed to be exhausted. The causes assigned were the widening of the Paumben channel which increased the current and the interference of the chunk divers. In 1856 an examination was made, the results of which showed the possibility of a fishery in 1861. Two fisheries actually took place in 1861 and 1862, the total amount realized being Rupees 3,78,581; since then, although oyster spat has on several occasions fallen on the banks, and hopes have been entertained of lucrative fisheries, they have all ended in disappointment, the young oysters being destroyed by predatory fish which abound in these seas. No means have yet been devised for preventing this; but the causes of the failure are under scientific investigation. The pearl fisheries are conducted entirely on account of Government, the divers employed being given one-third of all oysters they bring up subject to certain rules. The Government share of the oysters is sold by auction at so much per 1,000. The steamer 'Margaret Northcote' and boats 'Pearl' and 'Edith' form a guard establishment at the pearl banks, the steamer being used for other duties when not required for inspection there. No crews are at present entertained for the 'Pearl' and 'Edith,' and the latter boat has been lent to the Marine Department at Paumben until her services are again needed.

CUSTOMS.

352. Sea Customs.—Sea customs [1] procedure is regulated by India Act VIII of 1878. Duties on goods imported from and exported to foreign countries are levied under the tariff and rates prescribed in India Act XI of 1882. The other Acts in connection with the subject of customs and which are available to the public are: the Statute 27 & 28 Vic., c. 25, s. 16 (1864), Naval Prize of War; India Act XIX of 1852, s. 11 (Abkarry, Madras Town); India Act I of 1859, ss. 31, 32 (Merchant Seamen); India Act XII of 1864 (Effectuating India Act IV of 1863); India Act VII of 1871, s. 81 (Emigration); India Act XVI of 1871, s. 7 (Survey of Steamers, Burmah); India Act XII of 1875, India Ports Act; India

[7] Net Profit on Chunk Shells.

Year.	Net profit.	Price per 1,000.	Year.	Net profit.	Price per 1,000.
	RS.	RS. A. P.		RS.	RS. A. P.
1876-77	12,066	71 4 0	1880-81	9,646	125 8 0
1877-78	22,904	91 0 0	1881-82	28,451	114 0 0
1878-79	22,250	83 0 0	1882-83	22,039	116 3 0
1879-80	6,715	85 10 0			

[1] Sketch History of Sea Customs in this Presidency.—The earliest regulation which legalized the levy of sea customs duties in this Presidency is the Madras Regulation I of 1802 (vide section 2). A consolidated enactment was passed in the following year, Regulation IX of which makes provision for the levy of import and export duties at the port of Madras. Such duties, however, appear to have been collected there without legal enactment for many years before, the earliest record in the Madras Sea Custom House belonging to the year 1786. Regulation IX was followed by Act VI of 1844, which provided for the collection of land and sea customs throughout the Presidency. Act VI of 1863 consolidated the law relating to sea customs and remained in force throughout British India until superseded by the present Sea Customs Act, India No. VIII of 1878. At first the sea customs at Madras were controlled by a separate Sea Customs Collector on Rupees 3,400 per month with a deputy on Rupees 1,500, assistants and a staff of native officials. As circumstances altered reductions were gradually made in this establishment until the year 1870 when Madras district was separated from Chingleput district and placed under the same officer as the sea customs, with the designation of Collector of Madras and Sea Customs. In the latter branch he was then assisted by a Deputy Collector on Rupees 700, two Appraisers on Rupees 500 and Rupees 300 respectively, and a manager on Rupees 225 with a subor-

Act VIII of 1876, ss. 5, 24, 29, 41, 44 (Native Passenger Ships); India Act V of 1877, s. 47 (Emigration to Straits); India Act VII of 1878, s. 39 (*b*) (Forests); India Act XI of 1878, ss. 7, 10 (Arms); India Act IX of 1879, ss. 3, 5, 7–13 (Coast Lights); India Act XVI of 1879, s. 6 (Transport of Salt by Sea); India Act VII of 1880, ss. 35, 38–40, 83 (Merchant Shipping); India Act IV of 1881, an Act to enhance the rate of port dues leviable at Madras; India Act VIII of 1881, Petroleum Act; India Act III of 1882, s. 3 (Native Press); India Act V of 1883, Merchant Shipping Act; and Mad. Act VI of 1871, s. 14 (Excise Duty on Salt). The duties are collected by special establishments maintained at each port, and are controlled by the Collectors of land revenue, except at the town of Madras, where there is a special Collector of Sea Customs. The latter officer has also charge of the land revenue, &c., of the town of Madras, his salary is debited in the proportion of two-thirds to customs and one-third to land revenue. The sea customs revenue is composed of the following items:—(1) import and export duties; (2) godown rent; (3) sale of unclaimed goods; (4) fees and penalty; (5) fine for undervaluing goods; (6) fees for clerks doing duty out of office hours; (7) fees collected on drawback goods; (8) amount of 5 per cent. commission charged on Basses light dues; (9) amount of 1 per cent. commission charged on Straits light dues. The only articles at present dutiable on importation are arms, ammunition and military stores, liquors, opium and salt; and on exportation, rice. No duty is levied on goods imported from one customs port into another, except in the case of (*a*) opium and salt, (*b*) dutiable goods brought from any foreign port to any customs port and, without payment of duty, there transhipped for, or thence carried to, and imported into any other customs port, and (*c*) goods brought in bond from one customs port to another, provided they are not Government property. The following goods are prohibited from being imported or exported:—(1) Books printed in infringement of any law on the subject of copyright, (2) any counterfeit coin, (3) any obscene book, pamphlet, drawing, figure, &c., and (4) articles bearing counterfeit trade-marks. Under certain circumstances re-imported goods are liable to customs duties as also goods derelict and wreck. Drawback of duties is granted on goods to enable them to be disposed of in a foreign market as if they had never been taxed in the first instance. Provision is also made for the lodgment of goods under certain conditions in appointed warehouses for eventual removal for home consumption or re-exportation as the owner may desire. The coasting trade is freed from the restrictions contained in the Customs Act in regard to inward and outward entry, and, speaking generally, the provisions of the Act for its regulation concede the utmost liberty compatible with the prevention of smuggling and with the statistical requirements of the Government. The following is the procedure adopted for the levy of customs duties. At the ports of the Presidency vessels anchor within the limits appointed and discharge their cargo according to prescribed rules. Special places are appointed within port limits for the landing of special classes of goods. A manifest of the cargo on board is delivered by the commander or the agent of the vessel within 24 hours of her arrival and she is entered at the custom-house on production of a certificate from the Conservator of the Port under the provisions of the Indian Ports Act when a permit is granted for the due discharge of her cargo. With each boat-load of cargo discharged a boat-note is sent by the commander which is taken charge of by the customs officials at the landing-place, who check the goods. Steamers are permitted to discharge cargo immediately on arrival under section 59 of the "Sea Customs Act, 1878," in anticipation of entry. Goods when landed are entered for home consumption by

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dinate establishment costing Rupees 3,507 a month. In 1882, owing to the introduction of the new tariff, this establishment was further reduced to a "Deputy Collector and Appraiser" on Rupees 500, a manager on Rupees 100, and an establishment of Rupees 1,962. The Collector's salary which had prior to that event been wholly debited to "sea customs" was apportioned between sea customs and land revenue in the proportion of two to one. In the mofussil ports the Sea Customs Act has from the beginning been worked by special establishments presided over by customs superintendents and controlled by the several Land Revenue Collectors. There is a separate port officer in charge of the conservancy of the more important outports. Elsewhere the customs superintendents attend to this duty. The introduction of the new tariff was followed by the reduction of establishment at the ports of Tuticorin, Negapatam, Nagore, Adiramputtam, Cochin, and Keelakaray, to the extent of Rupees 242 per month. The customs work previously performed by the Consular Agent at Pondicherry was at the same time withdrawn and transferred to the customs superintendent at that port. By Regulations IX and XI of 1803, the superintendence and control of the whole of this department were vested in the Board of Revenue. Regulation XV of 1808 transferred them to the Board of Trade. This body, however, having been dissolved by the Charter Act 3 & 4 William IV, cap. 85, the control reverted to the Board of Revenue by whom it still continues to be exercised.

presentation of a "bill of entry" giving particulars of value, quantity, &c., and after this document has been checked with the manifest of the vessel concerned and examined by the Appraiser, with a view to ascertain the correctness of the value given, the amount of duty, if any, is calculated and collected. Goods are then passed out of the custom-house under a pass granted by the customs officer. Similarly, in the case of goods intended for exportation, a shipping bill is put in, after examination of which duty, if any, is collected and a pass granted for the shipment of the goods as soon as checked by the customs officers. Export boat-notes have been dispensed with in this Presidency since February 1882. On the application of the master or the agent of the vessel, and on production of a certificate from the port officer of compliance with all the regulations of the port, port clearance is issued. Before the vessel sails, or if a guarantee has been given, then within five days after the vessel has sailed the master or the agent gives an export manifest in duplicate containing the description and quantity, &c., of the cargo he has taken on board. The shipping bills are checked with this document and the manifest, if correct, is signed and returned to the master or agent, the duplicate being retained for record. The following dues are also levied by customs officers:—Port dues under Act XII of 1875 (Indian Ports Act); Basses light dues under the Merchant Shipping Act, 1854; Straits light dues under Government of India Act XIII of 1854. The Customs Collector at the Madras port and the Land Revenue Collectors at the outports carry out the provisions of the Indian Arms Act XI of 1878 and Petroleum Act VIII of 1881, so far as the importation and exportation of arms and ammunition and importation of petroleum are concerned. Departmental rules not having the force of law are of no public interest and may be dismissed in a few words. They deal with the procedure for levying fines on ship-owners, with applications for refunds under section VIII, clause 3, Indian Arms Act, and with the method of calculating duties and godown rent on imports and exports, together with a hundred other technicalities, such as the closing of bills of entry, the custody of bills of lading, and the submission of duty bills and overtime. The law in reference to "Sea Customs" is shown in detail under the heads of "Custom House," "Customs Officers" and "Sea Customs" in Vol. II, App. LIV. And the rules having the force of law on the subject are given in the foot-note.[2] The sea customs duty collected during the twenty-two years ending 1882-83 is shown below.[3]

353. LAND CUSTOMS.—Land-customs duty, otherwise called sayer, which however merely means 'remainder,' is levied on four small inland customs lines only, namely on cordons drawn round the four French sea-board settlements of Yanam in the Godavery, Pondicherry in South Arcot, Caricaul in Tanjore, and Mahé in Malabar. No other frontiers are taxed. The rates of duty charged are the same as those applicable to articles imported from or exported to foreign countries by sea. The duty is collected by establishments posted on the frontiers. At the customs stations situated on principal roads the superintendents take tolls. At various other out-stations the police stop persons carrying dutiable articles and conduct them to the customs stations. The settlements just named have little or no sea customs of their own; in the absence of a British land custom line there-

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[2] RULES RELATING TO SEA CUSTOMS HAVING THE FORCE OF LAW.—Under Act VIII of 1878, sections 9, 11, 14, 19, 75 and 76 (Sea Customs), the following have the force of law:—Board's Standing Orders 54—80, pages 85-110. (1) Section 6, Salt Commissioner appointed Customs Collector for the purposes of section 138—Revenue Notification, Fort St. George Gazette, 19th September 1882. Sections 6 and 7—Further appointment of officers—Fort St. George Gazette, 11th December 1883. (2) Section 9—Bye-law requiring masters, &c., receiving goods on board to sign the Police Export Boat Pass in lieu of the Export Boat Note. Rules made by the Chief Customs authority—Fort St. George Gazette, 11th December 1883. (3) Section 11—Consolidated list of places declared to be ports, &c.—Fort St. George Gazette, 11th December 1883. (4) Consolidated list showing the limits of the several ports—Fort St. George Gazette, 11th December 1883. Section 11 (*c*) and (*d*)—Limits for the landing and shipping of goods in any customs port—Fort St. George Gazette, 1st August 1882. (5) A portion of the port of Mangalore declared to be a wharf for the landing of firewood—Revenue Notification, Fort St. George Gazette, 30th November 1881. (6) Section 14—Certain ports in the Madras Presidency declared to be warehousing ports—Fort St. George Gazette, 11th December 1883. (7) Section 76—The portion of this section relating to Export Boat Notes suspended from operation at the port of Madras and at all out-ports—Revenue Notification, Fort St. George Gazette, 21st September 1880, 1st March 1882, and 11th December 1883. (8) Rules regarding drawbacks. (9) Revised rules for coasting steamers. Under India Act VIII of 1881, section 1, cl. 3, 4, 5, 7, 8, 9 and 10 (Petroleum), the following have the force of law:—(1) Section 1, cl. 3—Extending Act to the port and city of Madras and to all municipalities—Fort St. George Gazette, 10th July 1883 and 28th August 1883. (2) Sections 4, 5, 7, 8 and 9—Rules under sections 7 and 9—Fort St. George Gazette, 10th July 1883, 28th August 1883, 21st December 1883, and 19th February 1884. (3) Section 10—Certain officials authorized to exercise powers conferred by this section—Fort St. George Gazette, 16th October 1883 and 6th August 1883.

fore goods would pass into India free. For the convenience of merchants special arrangements have been made for the levy of duty on wines and spirits at Pondicherry. The British Consular Agent at that place collects duty on all consignments exceeding 50 gallons and furnishes exporters with passes or certificates evidencing payment of duty to enable them to convey the goods into British territory without the necessity for submitting the packages for examination at the frontier. Since the opening of the railway to Pondicherry, further arrangements have been made with the consent of the French Government to levy import duty on goods voluntarily tendered for examination at the Pondicherry railway station, so that the traffic may not be obstructed by detention at the frontier. Dutiable goods not so tendered at Pondicherry are stopped at the frontier station of Cundamungalam for being dealt with in the usual way. Under exports, the only articles now liable to duty are rice and paddy. These pass into French territory in the first instance free of duty, the French Government levying the prescribed duty on so much as is exported from their ports by sea, and paying it over to the British Government. The receipts and charges during the twelve years ending 1882-83 were as shown below.[4] The detailed law on land customs is shown under the heads of "Inland Customs" and "Inland Customs Act" in Vol. II, App. LIV.

GOVERNMENT IN CONNECTION WITH WILD AND OTHER ANIMALS.

354. INTRODUCTION.—For convenience certain departments of Government control relating to the above-named subjects are here grouped together. The Fauna of this Presidency are briefly described in a note by Dr. Bidie, Sanitary Commissioner, shown in Vol. II, App. IV.

355. REWARDS FOR DESTROYING WILD ANIMALS.—Government grant rewards for the destruction of wild animals at the following rates:—For an elephant Rupees 70, for a tiger Rupees 50, for a cheeta Rupees 25, for a bear Rupees 7, for a wolf or hyæna Rupees 5, for a jackal Annas 8. Rewards are not given for killing elephants or jackals unless the destruction of these animals is specially

[3] SEA CUSTOMS DUTIES LEVIED FOR A SERIES OF YEARS.

Years.	Imports.	Exports.	Years.	Imports.	Exports.
	RS.	RS.		RS.	RS.
1861-62	13,63,746	7,07,910	1872-73	16,34,532	10,90,191
1862-63	10,71,349	6,82,148	1873-74	17,48,128	13,71,595
1863-64	13,00,505	7,17,286	1874-75	16,80,788	12,25,272
1864-65	11,18,870	6,67,535	1875-76	17,84,205	9,75,128
1865-66	12,08,080	7,41,280	1876-77	17,03,798	5,38,503
1866-67	13,67,250	5,61,180	1877-78	16,27,541	2,53,950
1867-68	14,78,360	8,59,980	1878-79	14,34,274	4,63,543
1868-69	16,02,130	10,14,790	1879-80	13,79,020	7,07,177
1869-70	16,58,390	9,07,880	1880-81	15,28,910	7,17,625
1870-71	17,92,484	10,36,835	1881-82	13,79,687	4,49,184
1871-72	16,28,128	12,86,629	1882-83	5,40,363	3,73,418

[4] LAND CUSTOMS RECEIPTS AND CHARGES FOR A SERIES OF YEARS.

Years.	Receipts.	Charges.	Years.	Receipts.	Charges.
	RS.	RS.		RS.	RS.
1871-72	2,04,233	12,044	1877-78	97,873	20,619
1872-73	1,96,117	14,267	1878-79	1,18,994	* 44,160
1873-74	2,19,313	15,488	1879-80	1,97,476	20,917
1874-75	2,64,000	15,007	1880-81	1,96,195	21,473
1875-76	2,85,762	15,144	1881-82	1,09,648	21,268
1876-77	1,83,346	15,999	1882-83	93,802	14,085

* Includes police charges, Rupees 22,900, which were included that year.

desirable in any locality. Except in the case of elephants the skin and claws of the animal destroyed are produced before and surrendered to the officer disbursing the reward. Rewards can be granted by Collectors, divisional officers, tahsildars and deputy tahsildars. There are special orders authorizing higher rates of reward in certain cases. Collectors are empowered to offer Rupees 100 for the destruction of a tiger that has killed a human being. The Collector of South Canara is authorised to give Rupees 60 and Rupees 40 for every tiger or leopard killed. The Collector of Kurnool is authorised to offer Rupees 300 for the destruction of any man-eating tiger in his district. A reward of Rupees 100 is sanctioned for the destruction of every tiger in the Agency Tracts of Godavery and Ganjam and in the district of Vizagapatam. The two statements at foot show the number of wild animals killed and brought for reward,[1] and the loss of human life by the attacks of wild animals,[2] during five recent years.

356. Preservation of Elephants.—Act I of 1873 prohibits the destruction of wild female elephants on Government or other waste and on forest land, and permits the destruction of wild male elephants on such land only with the license of the Collector. Landholders are permitted to shoot wild male elephants on their own lands, and it is permissible to kill elephants damaging crops or in the immediate vicinity of any public road or in self-defence. In the Coimbatore district a special establishment was maintained for the capture of elephants from 1873 to 1879. The elephants were captured in the Collegaul talook and along the Mysore frontier of the district. The operations were not financially successful owing to the excessive death-rate among the captured elephants.

357. Game Preservation.—There is no Game Preservation Act in force in any part of this Presidency except in the Neilgherry district, but Government has the power under the Madras Forest Act, 1882, to make rules for regulating the shooting of wild animals within the limits of Government reserved forests. Madras Act II of 1879 or the Neilgherries Game and Fish Preservation Act, 1879, has for its object the protection of wild animals and birds used for food and of acclimatized fish in that district. By a notification under this Act, dated 3rd February 1881, Government has constituted close seasons for the various kinds of game found in the district. Large game (which term includes bison, samber, ibex, jungle-sheep and deer of all kinds) are protected from molestation from the 1st June to the 31st October in each year, and small game (that is, hares, jungle-fowl, pea-fowl, partridge, quail, spur-fowl, snipe and wood-cock) are similarly

[1] Wild Animals killed and brought for Reward.

——	1879.	1880.	1881.	1882.	1883.
Elephants	...	...	...	3	1
Tigers	144	136	189	278	185
Panthers and leopards	644	750	837	1,205	1,565
Bears	110	121	149	215	298
Wolves	34	34	26	24	93
Hyænas	120	104	166	289	457
Other animals	2,956	139	62	41	109
Total ...	4,008	1,284	1,429	2,055	2,708

[2] Persons killed by Wild Animals.

——	1879.	1880.	1881.	1882.	1883.
By elephants	7	7	3	5	5
„ tigers	56	108	135	206	267
„ panthers and leopards	83	44	47	28	49
„ bears	5	5	1	11	28
„ wolves	3	...	...	...	3
„ hyænas	2	...	...	...	6
„ other animals	52	59	52	25	24
„ snakes	1,128	1,182	1,064	920	1,267
Total ...	1,336	1,405	1,302	1,195	1,649

protected from the 1st March to the 30th September in each year. It is however expressly provided in the Act that the proprietors and occupiers of land may adopt such measures on their land as may be necessary for the protection of crops or produce growing thereon. Other provisions of the Act enable the Government to regulate (and to prohibit for a period not exceeding three years) the destruction of any foreign fish, bird or animal useful for food which has been introduced into the district with a view to its acclimatization; and also to regulate the fishing for acclimatized fish and the poisoning of lakes and rivers in the district. In order to provide funds for the protection, preservation, and acclimatization of games and fish, Government has, by a notification dated 7th February 1880, authorised the Collector to levy a fee of Rupees 15 per annum from each person who desires to shoot game in the Government reserved forests of the district. The funds so raised have been placed at the disposal of the Neilgherry Game Association, who are represented by a Committee and an Honorary Secretary. These funds are employed in maintaining game-watchers, providing them with guns and traps for the destruction of vermin, granting rewards for the same and generally in carrying out the objects of the Act. It is as yet too soon to speak with confidence of the effect of the Act, but the Game Association believe that it has been productive of some benefit already and may be made still more useful as experience is gained of its working. The game rules having the force of law are given in foot-note [3] below.

358. CONTROL OF CATTLE DISEASE.—Outbreaks of cattle disease are controlled by Madras Act II of 1866, which is put in force in the districts when the malady is severe. An account of the cattle diseases most prevalent in this Presidency is given in Vol. II, App. XV. The chief is anthrax, a disease which can be communicated to any animal, and even to man. The formation of a Civil Veterinary Department was sanctioned in December 1881. This when complete will consist of 27 local cattle disease inspectors in addition to an inspector and deputy inspector. The inspector's duties are to lecture at the Government Agricultural College, Sydapett, on zoology, veterinary medicine and surgery, anatomy, physiology, materia medica and therapeutics, toxicology, veterinary obstetrics, stock-breeding and sanitation; to afford clinical instruction at the veterinary hospital and practical anatomy in the dissecting shed when subjects are procurable. He has also to pay visits to the Madras slaughter-houses, when time permits, for the purpose of teaching the students of his department and for the detection of disease amongst the animals slaughtered. He is in entire charge of the department, and acts under the authority of the Director of Revenue Settlement and Agriculture, to whom he is responsible for his duties as inspector of cattle diseases. In educational matters he communicates with the Principal of the Agricultural College. The deputy inspector is kept continually itinerating, and proceeds where his services are most urgently required. When he is at head-quarters his duties are confined to attendance on the animals in hospital and to giving practical instruction to the students. The local cattle disease inspectors are graduates of the Agricultural College specially selected for veterinary knowledge. After joining they are on probation for 12 months, during which period they must give their whole attention to cattle diseases and the performance of the most useful operations. They are examined monthly, and at the end of their probationership, if found qualified, are promoted and posted to a district where they are placed under the orders of the Collector. A Veterinary Hospital has been opened at Sydapett under Act VI of 1879. Since it was opened nearly 300 cases have been admitted for treatment.

[3] GAME RULES HAVING THE FORCE OF LAW.—Under Madras Act II of 1879 the following have the force of law:—(i) Section 2, Certain birds added to the list of game—Judicial Notification, Fort St. George Gazette, 13th April 1880, (ii) Section 3, Fixing close season—Public Notification, Fort St. George Gazette, dated 8th February 1881.

LAW AND LEGISLATION.

359. INTRODUCTION.—In the foot-note [1] will be found a sketch history of English legislation, law, and law courts for the Presidency.

360. STATUTE LAW OF THE PRESIDENCY.—In the Appendices are given lists as follows. In Vol. II, App. XLVIII, a list of all the regulations, whether repealed or not, passed by the Governor of Fort St. George in Council, under 39 and 40 Geo. III, c. 79, s. 11, and 47 Geo. III, sess. 2, c. 68, s. 1 (none having been made under 53

[1] SKETCH HISTORY OF ENGLISH LEGISLATION, LAW, AND LAW COURTS IN THE PRESIDENCY—*Introduction.*—In the following epitome, the growth of the legislating authority, the law, and the law courts will be treated as one subject; though in the text an account of the present constitution and operations of the law courts has been given by special sections. Crown courts for the Presidency towns and Company's courts for the districts are also treated here in one note, though in reality the fusion between the two has been till recently so slight that the histories might well have been kept distinct. (2) *Legislative and Judicial Powers given by Charters.*—The "London East India Company" obtained their charter from Queen Elizabeth on December 30th, 1600. The patent thus obtained and the firmaun subsequently given by the Emperor Jehaungeer in this country in 1613 related almost exclusively to trading monopoly and rights. The charter of Queen Elizabeth nevertheless granted to the Governor and Company or the more part of them assembled power "to make, ordain and constitute such and so many reasonable laws, constitutions, orders, and ordinances, as to them or the greater part of them being then and there present shall seem necessary and convenient for the good government of the said company and of all factors, masters, mariners, and other officers employed or to be employed in any of their voyages and for the better advancement and continuance of their trade and traffic, and at their pleasure to revoke and alter the same or any of them as occasion may require" and to provide such pains and penalties by imprisonment or fine as might seem to them to be necessary to secure their due observance. How far this clause was acted upon cannot be ascertained. No trace of laws is to be found. It is probable that the power of legislation or framing formal ordinances was very sparingly used. The charter contained the proviso, "so always as the said laws, orders, constitutions, ordinances, imprisonments, fines, and amerciaments be reasonable and not contrary or repugnant to the laws, statutes, or customs of this realm." This is practically the first introduction of English statute law into India; and by tacit understanding colonists of former days in such a position always took the laws of their own country with them for application among themselves. Even foreigners of other nations residing in English factories in India were subjected to English law. In 1618 express provision is found in the treaty executed between Sir Thomas Roe, the Ambassador of James I, and the Moghul, that disputes between the English at Surat should be decided only by themselves. As to natives they were nominally still independent of English authority; but if they lived within the limits of settlements, it is probable that that authority was used. Living outside a factory a native would claim the protection of his own courts, even where a European was concerned. As a result of these arrangements for transactions outside his factory the Englishman himself would be subject to the judicial tribunals of the country, but inside of it he would be judged by his countrymen. A charter of James I in 1609 left things much the same. In 1624 the company applied by petition to King James I for authority to punish their servants abroad by martial law as well as by municipal, and were granted accordingly a "commission under the Great Seal" from the Crown of England, which empowered the presidents of the factories to try British subjects for criminal offences on occasion by "martial law," and to inflict even capital sentences on them. (3) In 1653 Fort St. George which had up to this time been governed by an agent and council subordinate to Bantam, was raised to the rank of a separate Presidency. On the death of Cromwell and accession of King Charles II in 1661, the Company, enlarged a year or two before by coalition with the "Merchant Adventurers" Company, considered it expedient to apply for a renewed charter. This was granted, and among other things announced the power of governors and councils of the several factories "to judge all persons belonging to the Governor and Company of the East Indies, or that should live under them, in all causes whether civil or criminal, according to the laws of the kingdom, and to execute judgment accordingly." The expression "those that should live under them" included all classes. English statute law is here expressly recognized. In 1669 again the East India Company obtained a special grant or power to pass "laws and constitutions for the good government of the settlement" of Bombay, and to inflict necessary punishments; in which case it is to be observed that the Island of Bombay was more than a trading station, being an actual territorial possession ceded by formal treaty. It had belonged on those terms to the Portuguese, and came over to the English in 1661. The legislative and judicial position was therefore less anomalous. The question of jurisdiction still remained as under King James's charter of 1624. In 1683 Charles II granted a charter in which it was declared that a Court of Judicature should be established at such places as the Company might appoint; to consist of one person learned in the civil laws and two merchants all to be appointed by the Company and to decide admiralty matters according to equity and good conscience and according to the laws and customs of merchants by such rules as the Crown should from time to time direct either by the Great Seal or Privy Seal; failing which directions by such ways and means as the Judges should think best. (4) The union of the old or London, and the new or English Companies was effected by the "Charter of Union" of 1702, and was completed under the award of the Lord High Treasurer, Lord Godolphin, in 1708. On the 25th March 1709 was held the first General Court of the United Company, afterwards called the East India Company. All the early charters were surrendered when the two companies were amalgamated under the award of Lord Godolphin. The laws passed in pursuance of them were directed to be published; but no trace of them now exists. They probably were for the most part concerned with the trade of the company, preserving its monopoly and repressing interference. It is probable, as above said, that the powers were not extensively used, but it was necessary that they should exist in order to provide for any emergency that might arise. (5) *The earliest Madras Courts under the above powers.*—Up till 1678 the arrangements in Madras for the administration of justice appear from the rules and regulations made by the Governor (Mr. Streynsham Master) and Council on the 31st January 1678 to have been as follows. It was the duty of the Customer, or fourth in Council, Mintmaster, and Paymaster, or any two of them, to sit every Tuesday and Friday in the choultry outside the fort to do the common justice of the town; and to take care that the scrivener of the choultry duly registered all sentences in Portuguese, and that there should be an exact register kept of all alienations or sales of slaves, houses, gardens, boats, ships, &c.; the company's due for the same to be received by the Customer, and the bills or certificates for such sales to be signed by the persons in the offices aforesaid or any two of them. The Purser-General or Paymaster had also to take charge of the concerns of deceased men, and to keep a book for registering wills and testaments and inventories of deceased persons, the moneys so received to be paid into the Company's cash; and in the same book to keep a register of births, christenings, marriages and burials of all English men and women within the town. The Justices of the Choultry also acted as Coroners. (6) *The first Supreme Court at Madras.*—On the 18th March 1678, by which time the inhabitants of Madras had greatly increased, and many complaints had been made of the want of an administration of justice in cases which could not be decided by the Justices of the Choultry, the Agent and Council resolved that under the Royal Charter of 13th Charles II (1683) they had power to judge all persons living under them in all cases whether criminal or civil according to the English laws, and to execute judgment accordingly; and it was determined that the Governor and Council should sit in the chapel in the Fort on every Wednesday and Saturday to hear and judge all causes; and that the Justices of the Choultry and constables under them should execute all orders of the court, such as writs, summonses for jurymen, executions after judgment, and apprehensions of criminals.

Geo. III, c. 155, ss. 98, 99); these begin in 1802 and end in 1834. In Vol. II, App. XLIX, a list of all the Acts, whether repealed or not, passed by the same authority under 24 and 25 Vic., c. 67, ss. 29—43; these begin in 1862, and the list is carried

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This Supreme Court of Judicature was not however intended to supersede the Court of the Justices of the Choultry. All small misdemeanours, breaches of the peace, and actions for debt not exceeding fifty pagodas were still to be decided by these justices. (7) *Inauguration of the Admiralty Court with a Judge Advocate from England.*—A copy of the 1683 charter was sent out to Madras by the Court of Directors with their general letter, dated 14th August 1683, in which they appointed their President to supply the place of Judge Advocate till one should arrive. This Judge Advocate was the person learned in the laws specified in the charter, and was to preside over the Court. This, in the words of the Minutes of Consultation of the 10th July 1684, "occasioned the silencing our former Court of Judicature, and has given great dissatisfaction, to the creating many disturbances and complaints for justice, to the discredit and disgust of our Government; and though the Honorable Company have appointed their President to supply the place of Judge Advocate till he shall arrive, yet having no directions for those proceedings, and being unacquainted with the methods thereof, it is thought and agreed to be of absolute necessity to the peace, justice, security and honor of the Government, that the old Court of Judicature be organised, and that causes be heard and decided there by jurors as formerly, by the authority of the first charter, till the Judge Advocate shall arrive or we prohibit further proceedings therein." At Bombay a Court of Admiralty was at once established, but as no Judge Advocate was sent to Madras, no further steps were taken in Madras in that direction. However in 1687 the Court of Admiralty, the forerunner of the present High Court, was established. The fourth paragraph of the Court of Directors' despatch, dated 7th January 1687, is as follows:—"We send by this ship, the 'Williamson,' Sir John Biggs to be our Judge Advocate, in whose fidelity and zeal for our service, and for the increase of our revenue in that great city of Madras, we have much confidence; and therefore for his greater honor we appoint him to be of our Council, notwithstanding he is not named in our last commission, and to take place next after our second of the Council for the time being; desiring you to give him such a publique reception as be fit to his quality and the trust we have reposed in him." (8) *The first Mayor's Court of* 1687.—In the same year the Company determined to assume the rank of an Indian power, and as such to negotiate and act for the interests of England. Bombay was declared a regency and the same plan was followed at Fort St. George. The King's Union Flag was ordered to be always used at the fort, the fortifications were to be extended and strengthened, and the garrison increased; and, that the internal administration of the town might correspond with its new character of a regency, it was erected into a corporation. The corporation was to have perpetual succession and a common seal, and to be capable of holding and disposing of lands, tenements and hereditaments. One of the inhabitants was to be elected and appointed Mayor, and there were to be twelve Aldermen, and sixty or more, not exceeding one hundred and twenty, Burgesses. Mr. Higginson, then second of the Council and afterwards Governor of Fort St. George, was appointed the first and modern Mayor of the corporation, and to take upon him and continue in the said office for one whole year from the 29th September 1688, if he should so long live, and so until a new Mayor should be chosen by the Aldermen and Burgesses. Three other members of council, one French merchant, two Portugal merchants, three Hebrew merchants and three Gentoo merchants, were appointed the twelve first and modern Aldermen; and John Nicks, John Stables, and twenty-eight others described only as merchants, but who appear from their names to have all been Englishmen, were appointed Burgesses. One of the Aldermen was to be elected Mayor on the 29th September in every year; and it was directed that the corporation should consist of a mixture of the most discreet, best and honestest of all sorts of people residing within the limits of the corporation, and that the Court of Aldermen especially should be made up of the heads and chiefs of all the respective castes. The Mayor and Aldermen as a Court of Record were to have power and authority to try and adjudge all causes whatever, criminal and civil, between party and party, whoever they might be, that should be brought before them in a summary way according to equity and good conscience and according to such laws, orders and constitutions as the Company had already made or should thereafter make and constitute for the good government of the inhabitants of Fort St. George and Madras. Their judgment was to be final in all causes civil wherein the value of the damages adjudged for the defendant to pay should not exceed three pagodas, but in case of a larger amount an appeal was given to the Supreme Court of Judicature, commonly called the Court of Admiralty, whose judgment was to be final in all such cases. In criminal cases upon which sentence should be awarded for the taking away the life or limb of any offender, the offender or prisoner so sentenced might appeal to the Supreme Court, whose sentence in such case should be final, and execution accordingly awarded and done within three days, except the General and Council, or General of India, or President and Council of Fort St. George, for the time being, should by reprieve order execution to be respited, or pardon the offender. The Mayor's Court was held in the choultry. A Recorder was also appointed to be an assistant to the Mayor in "trying, judging and sentencing all causes of any considerable value or intricacy when he can be present from other more weighty affairs." Sir John Biggs, Judge of the Supreme Court of Judicature, was the first Recorder of the Corporation. In October 1688 "it having been found that the Mayor, Mr. Nathaniel Higginson, could not attend the Court so often as might be requisite, in consequence of so much of his time being taken up by his having the care and charge of the general books of accompts and the mint upon him, it was agreed and ordered that the Mayor's Court be held once a fortnight, and that any two of the three English Aldermen justices, or what other Aldermen are willing to go to the choultry as formerly twice a week, to hear, punish and determine all small offences and complaints to the amount of two pagodas as fine or award; all greater to be deferred to the Mayor's Court to be examined and determined there." In 1698 Mr. Thomas Pitt was appointed "President of the Company's settlements on the Coast of Coromandel, Orissa in the Gingee and Mahratta countries, and the Coast of Sumatra" and also Commander-in-Chief at Fort St. George and Fort St. David, with particular instructions to direct his attention to the administration of justice, by rehearing the cases on which complaints had been made, and to frame a table of fees to prevent extortions from the inhabitants by the law courts. After his arrival the Governor and Council appear to have superseded the Court of Admiralty as a Court of Appeal, and in 1726, Governor Macrae was engaged upon a long list of appeals from the Mayor's Court, some of which were sent home to be adjudicated on by the Directors and even to be tried in Westminster Hall. (9) *The new Mayor's Court of* 1726.—In 1726 the Court and Directors represented by petition to George I that there was still great want at Madras, Fort William, and Bombay of a proper and competent power and authority for the more speedy and effectual administering of justice in civil causes, and for trying and punishing of capital and other criminal offences and misdemeanours. Accordingly, the then existing courts were superseded, and the East India Company were empowered by Royal Charter, granted in 1726, the thirteenth year of the reign of King George I, to establish at each of the three settlements a court, consisting of a Mayor and nine Aldermen, to be a Court of Record, and to try, hear, and determine all civil suits, actions, and pleas between party and party. From these courts an appeal lay to the Governors and Councils who were constituted Courts of Record for that purpose, and thence to the King in Council, in causes involving sums above the amount of 1,000 pagodas. This same charter also constituted Courts of Oyer and Terminer and Gaol Delivery at each settlement, consisting of the Governors and Councils, for the trial of all offences, except high treason, committed within the towns of Madras, Bombay, and Calcutta, or within any of the factories subordinate thereto, or within ten miles of the same; and the Governors and Councils were constituted Justices of the Peace, and were authorised to hold quarter sessions of the peace four times a year. The Court of Directors sent out with the Charter of 1726 a book of instructions with respect to the method of proceeding in all actions and suits as well civil as criminal, and in proving of wills and granting of letters of administration of intestates' estates, together with the forms of the several oaths directed by the charter to be taken, which book was compiled with great care and with the advice and assistance of the ablest lawyers in the several branches of business therein treated of. It was probably in this book of instructions that the doctrine was laid down that by the Charter of 1726 all the common and statute law at that time extant in England was introduced into the

down to Act V of 1884. The fourth column in these two lists indicates if a Regulation or Act has been repealed wholly, in part, or locally. The remainder of the law belonging exclusively to this Presidency can be seen in the third list

Indian Presidencies, and that all the Parliamentary enactments passed since that period were excluded, unless their extension to India was specially declared. Richard Higginson, the first Mayor of Madras appointed by the new charter, having died before the charter reached Madras, the President and Council on the 14th August 1727 nominated Mr. John Powney one of the Aldermen named in the charter to be Mayor. The Mayor's Court, which had been established at Madras, was abolished on the capture of that place by the French under Labourdonnais in the year 1746; but the town having been restored to the English in 1749 by the treaty of Aix-la-Chapelle, the Directors of the East India Company represented to the King in Council that "it would be a great encouragement to persons to come and settle at that place, if a proper and competent judicial authority were established there;" and further, that it had been found by experience that there were some defects in the charter of 1726. Under these circumstances, King George II granted a new charter in the year 1753, re-establishing the Mayors' Courts at Madras, Bombay, and Calcutta, with some not very material alterations. By this charter these courts were limited in their civil jurisdiction to suits between persons not natives of the said several towns; and suits between natives were directed not to be entertained by the Mayors' Courts, unless by consent of the parties. The jurisdiction of the Government courts in criminal cases was also limited to offences committed within the several towns and the factories or places subordinate thereto, omitting the words, "or within ten miles of the same," contained in the previous charter. (10) *Warren Hastings' Adawlut scheme for the districts.*—The assumption by Lord Clive from the Nawab Meer Jaffier's son in 1765 of the Diwanny or right of collecting the revenue of Bengal, Behar, and Orissa, as it was the first step by the British in absolute government of a territory, so also introduced for the first time into their operations the responsibility of administering justice of every description and to all persons within their territorial jurisdiction. Nevertheless criminal justice was for a period of six years left in the hands of the Nawab; and even for revenue and civil matters native agency was employed, the general responsibility only being assumed. In 1769, when Verelst was Governor of Bengal, supervisors were appointed for the superintendence of the native officers; and they were furnished with detailed instructions to inquire into the history, existing state, produce and capacity of the provinces, the amount of the revenues, the regulations of commerce, and the administration of justice. Councils with superior authority were established at Moorshedabad and Patna, in the following year, to superintend the administration of justice and the collection of the revenue. Warren Hastings, who had already acquired a considerable reputation by his talents, and who had served with great credit in Bengal during the administration of Vansittart, and since then on this coast, was now Governor of Bengal, having been appointed to that office in the preceding year. In order to carry into effect their determination, the Court of Directors appointed a Committee, consisting of the Governor and four Members of Council; and Warren Hastings and his coadjutors drew up a report, comprising plans for the more effective collection of the revenue and the administration of justice. This report, which bears witness throughout to the soundness of the views entertained by those who compiled it, gave a detailed account of the Mahomedan law courts; and after animadverting strongly on their inefficiency, proceeded to set forth a plan for the more regular administration of civil and criminal justice, stated to have been framed so as to be adapted "to the manners and understandings of the people and exigencies of the country, adhering, as closely as possible, to their ancient usages and institutions." This plan was adopted by the Government on the 21st of August 1772. In pursuance of the plan of the Committee, the Exchequer and the Treasury were removed from Moorshedabad to Calcutta, and a "Board of Revenue," consisting of the Governor and Council, with an establishment of native officers, was constituted at the Presidency, for the management, not only of the collections, but many of the most important duties of the municipal government. The supervisors appointed under Verelst's system became soon after "Collectors," one of whom presided over each considerable district, assisted by a native officer, and the lands were leased to the highest bidder who could produce the requisite security for rent, for a period of five years. In each collectorate were established Mofussil Diwanny Adawluts, or Provincial Civil Courts for the administration of civil justice, which were presided over by the Collectors on the part of the Company, in their capacity of King's Diwans, attended by the provincial Diwans and the other officers of the Collector's court. These took cognizance of "all disputes concerning property, real or personal, all causes of inheritance, marriage, and caste, and all claims of debt, disputed accounts, contracts, and demands of rent;" excepting, however, questions relating to the succession to Zemindarry and Talookdarry property, which were reserved for the decision of the Governor and Council. A criminal court, styled the Fowjdarry Adawlut was also established in each district, for the trial of "murder, robbery, and theft, and all other felonies, forgery, perjury, and all sorts of frauds and misdemeanours, assaults, frays, quarrels, adultery, and every other breach of the peace or violent invasion of property." In these criminal courts the Cauzee or Moofty of each district was directed to sit to expound the law, and determine how far delinquents were guilty of any breach thereof; but it was also provided that the Collector should attend to the proceedings, and see that the decision was passed in a fair and impartial manner, according to the proofs exhibited. Two superior courts were established at the chief seat of Government, to be called the Diwanny Sudder Adawlut and the Nizaumut Sudder Adawlut; the former to be presided over by the President and Members of Council, assisted by native officers, and to be a court of appeal in all cases where the disputed amount exceeded 500 rupees; and the latter to be presided over by a chief officer, to be called the Daroghah Adawlut, appointed on the part of the Nauzim, assisted by native Mahomedan law officers, with a similar control to be exercised by the Chief and Council, with respect to the proceedings of the court, as was vested in the Collectors of districts. The Nizaumut Sudder Adawlut was to revise and confirm the sentences of the Fowjdarry Adawluts in capital cases and those involving fines exceeding 100 rupees, and to refer the former to the Nauzim for his sentence. In addition to these courts, there were also subordinate ones of original jurisdiction placed at the chief points of the provincial divisions. The head farmers of each Pergunnah having a final judgment in all disputes not exceeding ten rupees, and the Collectors and some of the subordinate officers being invested with certain powers, as Magistrates, for the regulation of the police. One of the leading features of this plan was that in the civil courts Mahomedans and Hindoos were entitled to the benefit of their own laws in all suits regarding inheritance, marriage, caste, and other religious usages and institutions. Native agency was largely employed at this time in the court system, because there were no means of replacing it, the Company's European servants not knowing enough of either the law or the language of the country. (11) *Similar arrangements for Madras.*—The arrangements here mentioned for the Bengal territories were copied in all particulars in other territories; for instance in the "Jagheer" round Madras acquired in 1765, in the "Northern Circars" acquired in 1766, and in the "Goontoor Circar" acquired in 1778. The Madras Mayor's Court retained all its former powers within its own territorial jurisdiction. (12) *The Regulating Act of Parliament of* 1773.—In 1773 disputes between the Company and the Crown resulted in the "Reconstruction Act," or as it is more generally named the "Regulating Act" (13 Geo. III, c. 63). This was the first Act which directly provided for the form of government in India and gave it a statute book of its own. It provided that the Government of Bengal should consist of a Governor-General and Council of four Councillors; and this was to be the Supreme Government, subject to the control of the Home authorities. Legislative powers were given under this statute to the Governor-General, for the "Settlement of Fort William" and other factories and places subordinate thereto. The powers were specifically "to make and issue such rules, ordinances, and regulations for the good order and civil government of the settlement of Fort William and other factories subordinate, or to be subordinate thereto, as shall be deemed just and reasonable; such rules, ordinances, and regulations not being repugnant to the laws of the realm." All laws were to be registered in the Supreme Court of Judicature at Calcutta, in order to give them validity. Madras and Bombay were at that time given no corresponding powers of making regulations. Warren Hastings was the first Governor-General. (13) *The first Crown Supreme Court.*—The Regulating Act further provided for the establishment of a Supreme Court of Justice at Calcutta, consisting of a Chief

in Vol. II, App. LI, which gives the Acts of the Supreme Council relating solely to Madras. The unrepealed portion of the whole of these three sections of law down to Madras Act I of 1876 will be found in extenso in the volume entitled the

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Justice and three Puisne Judges. The first Chief Justice was Elijah Impey. The seventh report of the Committee of Secrecy, appointed to inquire into the state of the East India Company, after a detailed description of the Courts of Judicature in Bengal, had observed upon the constitution and defects of the Mayors' Court, "that although it is bound to judge, at least where Europeans are concerned, according to the laws of England, yet the Judges are not required to be, and in fact have never been, persons educated in the knowledge of those laws by which they must decide; and that the Judges were justly sensible of their own deficiency; and that they had therefore frequently applied to the Court of Directors to lay particular points respecting their jurisdiction before counsel, and to transmit the opinion of such counsel to be the guide of their conduct." Upon this Report the 13 Geo. III, c. 63, was passed. All the members of the new court as appointed were English Barristers sent from England. The powers of the Court may be thus summarized :—" *a.*" It tried all actions arising amongst Europeans in Bengal, Behar, and Orissa. " *b.*" It tried and determined all causes against the Company or the subjects of the Crown, by natives who had property in Bengal, Behar, and Orissa, whether these actions were real, personal, or mixed. " *c.*" It was given an equitable jurisdiction similar to that of the Court of Chancery in England. " *d.*" It was a Court of 'Oyer and Terminer' over Fort William, Calcutta, and the surrounding factories. " *e.*" It was a Court of Probate and Divorce with reference to all British subjects in the Presidency. " *f.*" It had a power of appointment of guardians over lunatics and infants. " *g.*" It had civil and criminal jurisdiction in admiralty matters. And, lastly, " *h.*" It had full ecclesiastical jurisdiction. " *i.*" The only appeal from its decisions lay to the King in Council. No corresponding English court was at this period established in either the Madras or Bombay Presidency. (14) *Arrangements at this time for the districts.*—For the districts the arrangements which have already been mentioned remained for the most part undisturbed. (15) *The Amending Act of Parliament of* 1781.—The plan whereby the legislative Acts of the Governor-General were checked by the Calcutta Supreme Court was not successful. Disputes arose between the Council and that court, and an Act of Parliament of 1781 amended the Regulating Act in this respect. The most important part of the Act, and one it must be added completely reversing the policy of the Act of 1773, was the recognition by Parliament of the Civil and Criminal Provincial Courts, as existing independently of the Supreme Court; and of the Governor-General and Council, or some committee thereof, as the Chief Appellate Court of the country: as well as the fact that it vested the Council with the power to frame Regulations for those Provincial Courts independently of the Supreme Court. With reference to the inconveniences which had arisen from applying English law to the natives, the Supreme Court was, by the 17th section of the new Act, empowered to determine all actions and suits against the inhabitants of the city of Calcutta: but provided that their succession and inheritance to lands, rents, and goods, and all matters of contract and dealing between party and party, should be determined in the case of Mahomedans by the laws and usages of Mahomedans, and in the case of Gentoos by the laws and usages of Gentoos; and where only one of the parties should be a Mahomedan or Gentoo by the laws and usages of the defendant. And in order that regard should be had to the civil and religious usages of the natives, it was enacted that the rights and authorities of fathers and masters of families, according as the same might have been exercised by the Gentoo or Mahomedan law, should be preserved to them; "nor shall any acts done in consequence of the rule and law of caste respecting the members of the said families only be held and adjudged a crime, although the same may not be held justifiable by the laws of England." The result of the Act was that the distinction between Presidency towns and Mofussil which originated in the distinction between the Company's factories and the Moghul territory was perpetuated. In Bengal a revised Code was issued in the same year as this important Act. Very little legislation had been effected under the Regulating Act; though, under the Act of 1781, a large body of regulations continued to be passed for half a century. Thus the Act of Parliament, the Revised Code, the Parliamentary recognition of the Sudder and Provincial Courts, the grant of legislative authority apart from the veto of the Supreme Court, the restriction of the powers of that court, and the declaration of the right of Hindoos and Mahomedans to their own laws and usages constituted the measures of 1781. (16) *Miscellaneous provisions of this period.*—By the 24th Geo. III, c. 25, s. 44, passed in 1784, all His Majesty's subjects, as well servants of the Company as others, were declared to be amenable to all courts of justice, both in India and Great Britain, of competent jurisdiction to try offences committed in India, for all criminal offences committed in the territories of any native prince or state, or against their persons or properties, or the persons or properties of any of their subjects or people, in the same manner as if the same had been committed within the territories directly subject to and under the British Government in India. By the 29th section of the 26th Geo. III, c. 57, all servants of the East India Company, and all His Majesty's subjects resident in India, were made subject to the Courts of Oyer and Terminer and Gaol Delivery, for all criminal offences committed in any part of Asia, Africa, or America, beyond the Cape of Good Hope to the Straits of Magellan, within the limits of the Company's trade. The 30th section of the same Act declared that the Governor or President and Council of Fort St. George, in their Courts of Oyer and Terminer and Gaol Delivery, and also the Mayor's Court at Madras, according to their respective judicatures, should have jurisdiction, as well civil as criminal, over all British subjects whatsoever residing in the territories of the East India Company on the Coast of Coromandel, or in any other part of the Carnatic or in the Northern Circars, or within the territories of the Soobah of the Deccan, the Nawab of Arcot, or the Rajah of Tanjore. Section 67 of the 33rd Geo. III, c. 52, re-enacted section 44 of the 24th Geo. III, c. 25. Section 156 of the same statute extended the admiralty jurisdiction of the Supreme Court at Calcutta given under the charter; and the court was empowered, by means of juries of British subjects, to try, according to the laws and customs of the Admiralty of England, all offences committed on the high seas. By the 37th Geo. III, c. 142, s. 1, the number of Judges of the Supreme Court at Calcutta was limited to three. (17) *The Madras Recorder's Court of* 1797.—The Mayors' Courts at Madras and Bombay existed until the year 1797, when they were abolished and superseded by Recorders' Courts, established under the 37th Geo. III, c. 142. These Recorders' Courts consisted of the Mayor, three Aldermen, and a Recorder, who was to be appointed by His Majesty; and their jurisdiction extended to civil, criminal, ecclesiastical, and admiralty cases. They were empowered to establish rules of practice, and they were to be Courts of Oyer and Terminer and Gaol Delivery, for Fort St. George and Bombay; and their jurisdiction was to extend over British subjects resident within the British territories subject to the Governments of Madras and Bombay respectively, as well as those residing in the territories of native princes in alliance with those Governments. Their jurisdiction was also brought within the restrictions of the 21st Geo. III, c. 70; the laws of the Hindoos and Mahomedans were reserved to natives; and an appeal lay from their decisions to the King in Council. The first Recorder was Sir Thomas Andrew Strange. (18) *The Madras Supreme Court of* 1801.—The Recorder's Court at Madras was abolished by the 39th and 40th Geo. III, c. 79, and a Supreme Court of Judicature was erected in its place, to be a Court of Record, and consist of a Chief Justice and two Puisne Judges, who should be Barristers in England or Ireland of not less than five years' standing. The powers vested in the Recorder's Court were transferred to, and to be exercised by, the Supreme Court, which was also directed to have the like jurisdiction, and to be invested with the same powers, and subject to the same restrictions, as the Supreme Court of Judicature at Fort William in Bengal. Letters patent, granting a charter of justice to the Supreme Court at Madras, were issued on the 26th of December 1801. (19) *Lord Cornwallis' Legislative Code and Judicial Measures.*—Under the amending Act of 1781, as above stated, a large body of Regulations was passed in Bengal. The Marquis of Cornwallis revised and codified the Regulations in 1793, and on the 1st of May 1793, forty-eight regulations, so revised, were passed, of which the forty-first declares the purpose of forming into a regular code all regulations that might be enacted for the internal Government of the British territories in Bengal. These regulations did not exactly comply with the terms of the Act of 1773, while they exceeded the limits of the powers given by the Act of 1781. However, Parliament in 1797 (37 Geo. III, c. 142) recognised them as in fact valid, approved of the formation of a code of such regulations, and only added

"Madras Code," published under the authority of the Legislative department of the Government of India. Subsequent to Madras Act I of 1876, the Acts must be consulted as separately published.

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that they should be registered in the "Judicial Department," and that the reasons for each regulation should be prefixed to it. In 1793 Lord Cornwallis also introduced into Bengal his celebrated system of judicature. It was copied in Madras in 1802, as will be detailed hereafter. There were two principal features in it. The revenue and judicial offices in the districts were separated; and a regular system of appeals from lower to higher courts was inaugurated. (20) *The Madras Regulations, beginning* 1802 *and continuing to* 1834.—In 1799 39 and 40 Geo. III, c. 111, s. 11, empowered the Governor in Council of Madras to frame regulations for the Provincial Courts and Councils of this Presidency. Madras Regulations, based for the most part on those of Bengal, were first passed in 1802. In 1807 47 Geo. III, c. 68, s. 2, more specifically empowered the Governor of Madras in Council "from time to time, respecting ordinances, to make, frame, and issue such rules and regulations for the good order and civil government of the town of Madras and of the said Company's settlement at Fort St. George and other factories and places subordinate or to be subordinate thereto and to add the necessary sanctions thereto as the Governor-General in Council might make for the good order and civil government of Fort William." The Act provided "such rules, ordinances, and regulations to be made by the said Governor in Council of Fort St. George shall not be valid or of any force or effect until the same shall be duly registered and published in the Supreme Court of Fort St. George in like manner and within such time as the rules, ordinances and regulations to be made by the said Governor-General in Council of Fort William or by any Act or Acts now in force required to be registered in the Supreme Court of Fort William. It does not appear that the Governor-General exercised any direct authority over the Governor in Council of Madras in the matter of making laws. A copy of every regulation passed at Madras was sent to the Governor-General in Council, but it does not appear that it was submitted for approval before being passed, the legislative powers of the Governor-General's Council being restricted to Bengal. In 1813 the legislative power so conferred on all three Councils was extended, and at the same time placed under greater control. The Governor-General and the Governors in Council in their respective Presidencies, with the sanction of the Court of Directors and the Board of Commissioners, were empowered by an Act passed in that year to impose duties and taxes within the towns of Calcutta, Madras and Bombay; for the enforcing of which taxes, regulations were directed to be made by the Governor-General and Governors in Council in the same manner as other regulations were made. It was also provided in the same Act that the regulations should apply to all persons who should proceed to the East Indies within the limits of the Company's government. And in addition to the rule which had compelled the Indian Government to forward to the authorities in England copies of all regulations passed, it was then enacted that copies of legislative regulations, made by the several Governments of India, and required by various Acts of Parliament to be sent home, should be annually laid before Parliament. Section 95 of the same Act enacted "that nothing in this Act contained shall extend or be construed to extend to prejudice or affect the undoubted sovereignty of the Crown of the United Kingdom of Great Britain and Ireland in and over the said territorial acquisitions." Then followed two sections, one which (section 96) enabled all three Governments to make Articles of War for the order and discipline of the native officers and soldiers in their respective service; and for the administration of justice by courts-martial to be holden on such officers and soldiers; and for the constitution and manner of proceeding of such courts-martial. Another section (98) authorized them, with the sanction of the Home authorities, to impose, within the limits of their respective Presidencies, duties of customs and other taxes in respect of all goods and property and on all persons, British born or foreigners, being therein. In addition to those three powers of legislation conferred under the Acts of 1773, 1781, and 1813, a general power of altering the revenue, and of imposing new taxes had been exercised within the Provinces, and is alluded to more than once in Acts of Parliament. But as there is no Act which expressly conferred it, such power has generally been considered to rest on the inherent powers of Government; whether derived in succession to the native authority from the grant of the Diwanny, or from those statutes by which the general power of government or of ordering the revenues had been given or continued to the Company. Thus from time to time the legislative powers of the Councils were developed; and in pursuance of those powers, they enacted laws and regulations till 1834. (21) *Suspension of provincial legislation and commencement of Imperial Acts.*—In 1833 the attention of Parliament was drawn to certain defects in the laws in force in British India, the authority for making them and the manner of executing them. 3 and 4 Wm. IV, c. 85, restricted the power of legislation to the Governor-General in Council and took it away from the other Governments which were however authorized to propose to the Governor-General in Council drafts or projects of laws or regulations which they might think expedient together with their reasons for proposing the same, and the Governor-General in Council was required to take the same into consideration and to communicate his resolutions thereon to the Government concerned. The Governor-General in Council was to make laws and regulations for all persons, for all courts of justice, and for all places and things within British territory and regarding servants of the Company in allied native states. The Court of Directors could disallow laws passed by the Governor-General who was forthwith to repeal the same; the laws passed by the Governor-General were to have the same force as an Act of Parliament, &c. The Act provided also certain limits to the power of the Indian Legislature with regard to certain subjects of legislation. In the period between the Regulating Act and this year, the legislative power had been to make "Rules, Regulations, and Ordinances;" the term "Regulation" was consequently adopted as most properly describing the enactments issued. Under the 3 and 4 Wm. IV, c. 85, the power was given to make laws as well as regulations; and it was thenceforward the custom to call the enactments of the Governor-General in Council "Acts." The Act gave the Governor-General a Council of four members, of whom one was to be conversant with legal subjects. He was not a member of the Executive Council, and only sat when legislation was in question. Even then he was not necessarily present; nor need he concur when an Act was passed. The first additional or special member thus appointed, and sent out to India in 1834, was Lord Macaulay, and the work to which he gave his aid has been ever since unceasingly carried on. Under this Act, again, Commissioners were appointed in India to consider and propose drafts of laws. One of the principal results of the Commissioners' labours was the Indian Penal Code, drafted in 1837 and made into law in 1860. (22) *Institution of Courts of Requests and Small Causes.*—The Supreme Courts were the chief tribunals which owed their authority exclusively to the English Parliament and Crown. There were, however, other judicial authorities, derived from the same source, which long existed in India (some of them not yet abolished), and which were originally established in days before the Company had obtained sovereign power and when they had merely to govern their own servants and those resident under their immediate protection. Courts of Requests, for instance, were established by the charter of 1753, which renewed the Mayors' Courts in the three Presidency towns. They were empowered to determine suits when the debt, duty, or matter in dispute did not exceed five pagodas, i.e., twenty rupees. In 1797 (37 Geo. III, c. 142, s. 30) their jurisdiction was extended, the pecuniary limit being then fixed at eighty rupees. Two years later another Act (39 & 40 Geo. III, s. 17) was passed which gave certain powers to the Governments of Bengal and Madras, under which Commissioners were established for the recovery of small debts, and their jurisdiction gradually extended up to 400 sicca rupees. Doubts arose as to the power of the Calcutta Commissioners, and Act XII of 1848 was passed better to define their jurisdiction. The Courts of Requests were originally made subject to the order and control of the Supreme Courts in the same manner as the inferior courts in England are by law subject to the order and control of the Court of Queen's Bench. These Courts of Requests were in 1850 superseded by the establishment of Small Cause Courts in the Presidency towns. The jurisdiction of these new tribunals was subsequently extended and similar tribunals were also established in the mofussil. (23) *Institution of Justices of the Peace.*—The next judicial officers, who formed part of the Crown or Parliamentary system introduced into India, were the Justices of the Peace. They were first established at Madras, Bombay, and Calcutta by the charter of George I in 1726, which appointed the Governor and Councils of those places to be Justices

361. A large body of the law of the Supreme Indian Legislature relates to this Presidency in common with the other provinces. A chronological list of all the Acts of the Governor-General in Council during the uninterrupted period from

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of the Peace, with power to hold quarter sessions. This was at a time when the only object was to introduce a purely English system for the benefit of English and other servants of the Company. The Regulating Act (13 Geo. III, c. 63, s. 38) made the Governor-General and Council and Judges of the Supreme Court Justices of the Peace for the settlement of Fort William and the settlements and factories subordinate thereto. The Governor-General and Council were directed to hold quarter sessions within the settlement of Fort William; such quarter sessions to be a Court of Record. The Supreme Court charter authorized the new court to control the Court of Quarter Sessions and the Justices, exercising the same supervision and control over them as the Court of Queen's Bench exercises over the inferior courts and Magistrates. It also empowered the court to issue to them writs of mandamus, certiorari, procedendo, and error. The Judges of the court were also appointed Justices of the Peace in the Lower Provinces of Bengal, with such jurisdiction and authority as Justices of the Queen's Bench have within England by the common law thereof. Originally the only Justices of the Peace in India were the Governors and Councils of the three Presidencies, and the Judges of the Calcutta Supreme Court. Subsequently, when Supreme Courts were established at Madras and Bombay, the Judges of those courts were also made Justices of the Peace for their respective Presidencies; and the courts were vested with the same authority as the Calcutta Supreme Court over the proceedings of the Justices. In 1793 (33 Geo. III, c. 52, s. 151) an Act of Parliament empowered the Governor-General in Council to appoint Justices of the Peace from the covenanted servants of the Company, or other British inhabitants, to act within and for the three Presidencies and the places thereto subordinate respectively by commissions to be issued out of the Calcutta Supreme Court, on the warrant of the Governor-General in Council. Justices so appointed were not to sit in any Court of Oyer and Terminer and Gaol Delivery, unless called upon by the Judges of the Supreme Court and specially authorized by order in Council. All proceedings before Justices of the Peace (see 153rd section of the same Act) were removable by certiorari into the Court of Oyer and Terminer. In 1807 (47 Geo. III, c. 68, ss. 2, 4) the Governors and Councils of Madras and Bombay were authorized to act as Justices of the Peace for those towns respectively, and to hold quarter sessions. They were also empowered to issue commissions under the seals of the courts appointing British subjects to be Justices of the Peace in the provinces. In 1832 (2 & 3 Wm. IV, c. 117) the Governments of the three Presidencies were respectively empowered to appoint in the name of the King's Majesty, any persons resident within the territories of the Company, and not being subjects of any foreign State, to act within and for the three Presidency towns respectively as Justices of the Peace. The Governments of the three Presidencies, under the authority of Parliament, enacted from time to time various regulations authorizing and empowering Justices of the Peace to take cognizance of and punish certain offences. Several Acts (see Act IV of 1835, Act I of 1837, Act XXXII of 1838, Act IV of 1843, Act VI of 1845, Acts VIII and IX of 1849, and Act VII of 1853) were passed by the Imperial Legislative Council to regulate the jurisdiction and powers of Justices of the Peace. Their jurisdiction extended over the whole Presidency for which they were appointed. The classes subject to them were—"*a.*" All persons whatever, whether British or native subjects, in respect of offences committed within the limits of the ordinary jurisdiction of the Supreme Courts. "*b.*" All British subjects, resident in any part of the Presidency, except that, as regards crimes and offences triable by jury, and committed by British officers or soldiers at places more than 120 miles from the seat of Government, they were not called upon to interfere, such crimes being cognizable by a court-martial. "*c.*" All persons who had committed crimes or offences at sea. Lastly, all persons whatever resident without the jurisdiction of the Supreme Courts and the Court of the Recorder of Prince of Wales' Island were subject to the jurisdiction of Magistrates and Joint Magistrates acting as Justices of the Peace in certain cases. The law regulating the appointment and powers of Justices of the Peace was subsequently laid down by Act II of 1869. Magistrates of Police for the Presidency towns were first appointed under Act XIII of 1856. The Act required that they should be previously made Justices of the Peace; and gave to each of them all the powers and jurisdiction which are by law vested in two Justices of the Peace. Both by the Code of Criminal Procedure passed in 1861 (Act XXV of 1861, sec. 39) and previously thereto, European British subjects could only be committed or held to bail for trial by a Justice of the Peace. A Magistrate (not being a Justice of the Peace) could only hear the complaint, issue a warrant of arrest, and hold him to bail with a view to the complaint being investigated by a Justice of the Peace. The functions of a Justice of the Peace were threefold: first, the trial and punishment under certain Acts and Statutes (see 53 Geo. III, c. 155; Act VII of 1853; and Criminal Procedure Code, 1861, sections 163 and 165) of offences by summary conviction, and without a jury; secondly, the investigation of charges in view to the committal or discharge of the accused person; and thirdly, the prevention of crime and breaches of the peace. (24) *Institution of Coroners.*—By the 157th section of the statute noted below (33 Geo. III, c. 52), it was recited that it was expedient that Coroners should be appointed for the settlements in India for taking inquests upon view of the bodies of persons coming or supposed to have come to an untimely end. Power was accordingly given to the three Governments within their several Presidencies to appoint by order in Council certain British subjects to be Coroners, and by like orders to supersede or remove them as occasion might require. They were in respect of their powers and jurisdiction within the limits of the settlements for which they were appointed placed on a similar footing to Coroners elected for any county or place in England. All the Judges of the Supreme Court were made Coroners as well as Justices of the Peace for their respective Presidencies. The law relating to Coroners and their juries was laid down in certain subsequent Acts (Acts XLV of 1850, IV of 1848, and XXVI of 1848); but that which at present regulates their proceedings and the jurisdiction of Coroners is laid down in a later Act of the Imperial Legislative Council, viz., Act IV of 1871, since amended. (25) *Institution of Insolvent Courts.*—With regard to the establishment of courts for the relief of insolvent debtors in British India, they were first established by Act (9 Geo. IV, c. 73) of Parliament in 1829. They were directed to be holden from the 1st of March 1829, once a month at least throughout the year, and oftener, if need be, in Calcutta, and as often as found necessary within the towns of Madras and Bombay, by any one Judge of the Supreme Court of the Presidency. (26) *Institution of Vice-Admiralty Courts.*—With regard to Vice-Admiralty Courts, the Crown was empowered in 1800 (39 & 40 Geo. III, c. 79, s. 25) to issue a Commission from the High Court of Admiralty in England for the trial and adjudication of prize causes and all other maritime questions arising in India, and to nominate all or any of the Judges at the respective Presidency towns, either alone or jointly with others, to be the Commissioners for carrying out the purposes of the Commission. (27) *Law administered in the early part of the century.*—With regard to the laws administered in the early part of the century, the courts established by the Crown and Parliament for the most part applied English law, both civil and criminal; exceptions being made in favour of Hindoos and Mahomedans, that in suits against parties of either of those religions, by whomsoever they might be brought, whether by Europeans or natives, the law of the defendant should prevail. Their proceedings also were governed by the English law of procedure. Until 1834 they for the most part were amenable only to the legislative authority of Parliament, and to such regulations of Government as the Supreme Courts might choose to acknowledge and register. The Mofussil courts, on the other hand, had nothing to do with English law, but were amenable in all respects to the regulations of Government; and when Hindoo or Mahomedan law did not apply, or when no regulations were applicable, were directed to proceed according to justice, equity, and good conscience. That is to say, in cases for which no law was provided, the Judges were authorized to use the best discretion they possessed. Originally the number of cases for which no specific law existed must have been considerable. For, setting aside Hindoo and Mahomedan law, there was no law of contract, no law of succession, no territorial law, no law of evidence, no law of administration of deceased estates. The wide field, from which all specific law was absent, was gradually reclaimed, as it were, and brought within the limits of civilization. But the process was very gradual, and until the establishment of the Indian Law Commission and the Imperial Legislature in 1834 could hardly be said even to have

1834 to 1876 (ending with Act XIII of 1876), and a reprint in extenso of the unrepealed portions of the same so far as they extend or are extendible to the whole of British India or to the Presidency towns, will be found in the three

commenced. From that date, however, it proceeded slowly. The procedure of those courts was such as was from time to time prescribed by the regulations, which, by the constant process of repeal and amendment, at last gave a very uncertain and obscure expression to the rules which they provided. (28) *The Madras judicial system for the districts, inaugurated at the beginning of the century.*—In 1802 in the Governorship of Lord Clive, son of the celebrated Lord Clive, a judicial system for the districts was introduced into Madras. The system of 1802 presents little or no variation from that of Lord Cornwallis above referred to. It was determined that the offices of Judge and Magistrate, and of Collector of the revenue, should be held by distinct persons. Native Commissioners were appointed, with power to try suits not exceeding in value 80 rupees: an appeal lay to the Judge (Reg. XVI, 1802, ss. 2, 18). The Registers of the Zillah Courts had jurisdiction to try suits, original or on appeal from the Native Commissioners, referred to them by the Judge, when the property in dispute did not exceed 200 rupees: their decisions were final to the amount of 25 rupees: above that sum an appeal lay to the Zillah Judge (Reg. XII, 1802, ss. 6, 9, 10). A summary appeal also lay to the Zillah Judge in cases where the Registers refused to admit or investigate appeals from the decisions of the Native Commissioners on the ground of delay or informality (Reg. IV, 1802, s. 12). The Zillah Courts, presided over respectively by one Judge, assisted by native law officers, were established in the various districts in which the land revenue had been settled in perpetuity, for the decision of civil suits (Reg. II, 1802, ss. 1--3). The decisions of the Zillah Courts were final in suits under 1,000 rupees in value (Reg. II, 1802, s. 21); but when above that amount an appeal lay to the Provincial Courts of Appeal (Reg. IV, 1802, s. 12). The Provincial Courts were four in number, and were to try appeals from the Zillah Courts, and original suits referred to them by the Sudder Adawlut: their decisions were final in suits where the amount in dispute did not exceed 5,000 rupees, but above that sum, and in cases where they refused to admit regular appeals from the Zillah Courts for delay or other informality, a summary appeal lay to the Sudder Adawlut (Reg. V, 1802, s. 10). The Provincial Courts were also empowered to take cognizance of appeals which the Zillah Courts had refused to admit, or dismissed without investigation on the ground of delay, informality, or other default (Reg. IV, 1802, s. 12). The Sudder Adawlut consisted of the Governor in Council (Reg. V, 1802, s. 2); and from its decisions in civil suits of the value of 45,000 rupees and upwards an appeal lay to the Governor-General in Council (Reg. V, 1802, ss. 31—36). The plan introduced for the administration of criminal justice was also much the same as that in Bengal. Magistrates and Assistant Magistrates were appointed, and were directed to apprehend persons charged with crimes or offences, and to bring them to trial; and they had powers of inflicting punishment in cases of abuse and assault, and petty theft, by imprisonment, corporal punishment, or fine, which was in no case to exceed 200 rupees (Reg. VI, 1802, ss. 8, 9). British subjects residing in the provinces, and charged with criminal offences, were to be apprehended by the Magistrates, and sent for trial to the Supreme Court at Madras (Reg. VI, 1802, s. 19). Four Courts of Circuit were established for the trial of crimes and offences (Reg. VII, 1802, s. 2): the Judges were to hold half-yearly gaol deliveries (Reg. VII, 1802, s. 11), and they were empowered to pass sentence in capital cases, but such sentences were to be referred for confirmation to the Fowjdarry Adawlut (Reg. VII, 1802, s. 27). The Fowjdarry Adawlut, or chief criminal court consisted of the Governor and members of the Council (Reg. VIII, 1802, s. 3.), and had cognizance of all matters relating to criminal justice and the police (Reg. VIII, 1802, s. 8), and the power of passing final sentence in capital cases. The Governor in Council was empowered to pardon convicts, or commute their punishment (Reg. VIII, 1802, s. 14). All these criminal courts administered the Mahomedan law as modified by the Regulations. (29) *Alterations for the districts since* 1802 *and down to* 1853, *Civil Judicature.*—The first change worthy of notice in the department of Civil Judicature took place in the year 1806, when Zillah Courts were established in the districts to which the permanent settlement had not been extended (Reg. II, 1806). The constitution of the Sudder Adawlut was also altered and new Judges appointed (Reg. IV, 1806); and in the following year (Reg. III, 1807) the Governor was declared no longer to be a Judge of the court. The court has been since modified, and made to consist, as in Bengal, of such number of Judges as the Governor in Council might deem requisite (Reg. III, 1825). In 1809 a Regulation (Reg. VII, 1809) was passed by the occasional appointment of Assistant Judges of the Zillah Courts, and for altering and extending the jurisdiction of the Registers of those Courts, whose power of final decision was, however, abolished (Reg. VII, 1809, s. 6). The decision of a Zillah Judge, confirming on appeal the decree of the Register, was final; but if reversing the Register's decree, or disallowing a sum exceeding 100 rupees, a further appeal lay to the Provincial Court (Reg. VII, 1809, s. 8). The appointment of head Native Commissioners or Sudder Ameens was authorized, who were to try referred causes to the amount of 100 rupees (Reg. VII, 1809, s. 9). The decrees of the Zillah Judges were declared to be final in all appeals from decisions passed by the Native Commissioners; but an appeal was ordered to lie to the Provincial Courts from the decisions of the Zillah Judges, in all suits tried by them in the first instance (Reg. VII, 1809, ss. 23, 24). In this year the Provincial Courts were also authorized to admit summary appeals from the orders of the Zillah Courts refusing to admit or investigate original suits on the ground of delay, informality, or other default (Reg. VII, 1809, s. 25); and they were empowered to admit a special appeal in all cases where a regular appeal might not lie to them from the decrees of the Zillah Judges, if such decrees appeared erroneous or unjust, or if the cause appeared to be of sufficient importance to merit further investigation (Reg. VII, 1809, s. 26). These powers of admitting special appeals by the Provincial Courts were also made applicable to the Sudder Adawlut with respect to decrees passed by the Provincial Courts not open to the regular appeal (Reg. VII, 1809, ss. 28, 29). In the same year the Provincial Courts were given original jurisdiction in suits above 5,000 rupees, which had been previously cognizable by the Zillah Courts (Reg. XII, 1809, ss. 2, 3.) In 1816 the heads of villages were appointed to be Moonsifs, with a power to try and finally determine suits not exceeding 10 rupees in value (Reg. IV, 1816, ss. 2, 5); and they were also authorized to assemble Village Punchayets for the adjudication of civil suits of any amount within their village jurisdictions: the majority to decide. On proof of partiality the Provincial Courts were empowered to annul the decisions of the Punchayets, and to refer to a second Punchayet; but if so referred to a second Punchayet, and the second decision should agree with the former one, such decision was final (Reg. V, 1816, ss. 2—11). The Moonsifs were also authorized, as arbitrators, to determine suits for sums of money or other personal property not exceeding 100 rupees, when both the parties interested voluntarily agreed to such arbitration (Reg. IV, 1816, s. 27). In the same year District Moonsifs were empowered to take cognizance of suits for land and personal property to the amount of 200 rupees, excepting suits for Lakhiraj land, when their jurisdiction was limited to suits where the annual value did not exceed 20 rupees (Reg. VI, 1816, s. 11). The decisions of the District Moonsifs, in suits where the amount in dispute did not exceed 20 rupees, were final; in Lakhiraj suits their decisions were final where the annual value of the land did not exceed 2 rupees; above those sums an appeal lay to the Zillah Courts (Reg. VI, 1816, s. 43). In cases of inheritance, or succession to landed property between Hindoo or Mahomedan parties, the District Moonsifs were directed to obtain an exposition of the laws from the law officers of the Zillah Courts (Reg. VI, 1816, s. 62). The District Moonsifs were also empowered to assemble District Punchayets for the adjudication of civil suits of any amount, their decision to be appealable or final by similar rules to those above mentioned as applicable to Village Punchayets (Reg. VII, 1816, ss. 2—11). District Moonsifs were also empowered, as arbitrators, to hear and determine suits voluntarily referred to them for real or personal property of the same amount as their primary jurisdiction: in such suits their decisions were final (Reg. VI, 1816, ss. 57, 58). In this year the jurisdiction of Sudder Ameens was extended, in suits referred to them, to the amount of 300 rupees (Reg. VIII, 1816, s. 7), an appeal lying from their decisions to the Zillah Judge. The Sudder Adawlut was in the same year empowered to call up from the Provincial Courts, and try in the first instance, suits for 45,000 rupees and upwards (Reg. XV, 1816, s. 2), the then appealable amount to the Privy Council, but which has been since altered. The Sudder

volumes entitled "Unrepealed General Acts of the Governor-General in Council," published under the authority of the Legislative department of the Government of India. The list is too lengthy for insertion in this work, but reference must

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Adawlut was also authorized to admit a summary appeal from the Provincial Courts in all cases where such courts had refused to admit or investigate suits, original or on appeal, on the ground of delay, informality, or other default. The Provincial Courts and the Zillah Judges were in like manner, respectively, to be competent to admit summary appeals from the orders of the Zillah Judges or the Registers and Sudder Ameens (Reg. XV, 1816, s. 5). The Provincial Courts were also debarred from admitting regular appeals from decisions passed by Zillah Judges, on appeals from their Registers: it was provided, however, that they might admit special appeals from the decisions of the Zillah Judges in regular appeals from original judgments of Registers, Sudder Ameens and Moonsifs (Reg. XV, 1816, s. 3). At the same time all original suits tried by Provincial Courts were made appealable to the Sudder Adawlut (Reg. XV, 1816, s. 6). In the year 1818 the Governor-General formally relinquished his right of hearing appeals from the Sudder Adawlut at Madras; and a Regulation was framed on Bengal Regulation XVI of 1797, for the conduct of appeals to England from the Sudder Adawlut (Reg. VIII, 1818). In 1820 the 53d Geo. III, c. 155, was ordered to be in part promulgated at Madras, and translated into the country languages. Under this statute the Company's courts were given a jurisdiction in civil suits brought by natives against British subjects residing, trading, or holding immovable property in the interior. An appeal lay in such cases either to the Supreme Court or to the Sudder Adawlut (Reg. II, 1820). The jurisdictions of Registers, Sudder Ameens, and District Moonsifs were, in 1821, extended, respectively, to suits of the value of 1,000, 750, and 500 rupees (Reg. II, 1821, ss. 2—4). In 1825 all decisions by District Moonsifs, in suits for property in land, were made open to an appeal to the Zillah Courts (Reg. V, 1825). In 1827 Auxiliary Zillah Courts were established, to be superintended by Assistant Judges, who, it may be here remarked, have been termed, in succeeding enactments, Subordinate Judges, and not Assistant Judges. Sudder Ameens being natives, were also appointed in such courts, with the same powers as those given to Sudder Ameens by Regulation VIII of 1816. The Assistant Judges had original jurisdiction to the amount of 5,000 rupees; and they were also to try appeals from the decisions of the Moonsifs. An appeal lay from the decisions of the Assistant Judges in suits exceeding 1,000 rupees in value, to the Zillah Courts; but above that amount to the Provincial Courts. An appeal was also directed to lie from the original decisions of the Sudder Ameens, and a special appeal from their decisions on appeals from Moonsifs, to the Assistant Judges (Reg. I, 1827, ss. 2—7). Native Judges were appointed in the same year to try suits referred to them by the Assistant Judges, but not to have jurisdiction over Europeans or Americans (Reg. VII, 1827). Special appeals were also made admissible in 1827 as follows: viz., from the decrees of Assistant or Native Judges, to the Provincial Courts; from decrees of the Provincial Courts on appeals from Assistant or Native Judges, to the Sudder Adawlut (Reg. XI, 1827). In 1833 the jurisdiction of Registers was extended to 3,000 rupees, of Sudder Ameens to 2,500 rupees, and of District Moonsifs to 1,000 rupees (Reg. III, 1833, ss. 3—5). Suits for Lakhiraj land were to be cognizable on a reduced scale as before: viz., where the annual value of the land was one-tenth of those amounts. In 1836 it was enacted that the 107th section of the 53d Geo. III, c. 155, which gave to British subjects in the provinces a right of appeal from the Mofussil Courts to the Supreme Court, should cease to have effect in India; and it was also enacted that no person by reason of birth or descent should be exempted from the jurisdiction of the Company's courts (Act XI, 1836), or be incapable of being a Principal Sudder Ameen (as the Native Judges were then directed to be entitled), Sudder Ameen, or Moonsif (Act XXIV, 1836, ss. 1—5). Summary appeals were declared, in 1838, to be admissible from the orders of District Moonsifs refusing to admit or investigate suits cognizable by them, on the ground of delay, informality, or other default, by the Zillah Judges, Assistant Judges of Auxiliary Courts, and Principal Sudder Ameens (Act XVII, 1838). In 1843 it was enacted that special appeals should lie to the Sudder Adawlut from all decisions passed on regular appeals in all Subordinate Civil Courts, when it should appear that such decisions were inconsistent with law or usage, or the practice of such courts, or involved doubtful questions of law, usage, or practice (Act III, 1843, s. 1). In the same year a most important Act was passed, which placed the administration of justice in Madras on its present footing. By this Act the Provincial Courts of Appeal were abolished, and new Zillah Courts were established, presided over by one Judge, to perform their functions, and to replace the Zillah Courts then existing (Act VII, 1843, s. 1). The original jurisdiction vested in the Provincial Courts for amounts of less value than 10,000 rupees, was transferred to the Subordinate Judges and the Principal Sudder Ameens (Act VII, 1843, s. 4); and such courts were to have jurisdiction over Europeans and Americans as well as natives (Act VII, 1843, s. 5). The new Zillah Courts were to entertain appeals from the decrees of the Subordinate Judges and Principal Sudder Ameens, and of Sudder Ameens and District Moonsifs: they were also authorized to refer appeals from the decisions of District Moonsifs to the Subordinate Judges or Principal Sudder Ameens; and when these Judges were stationed at places remote from the station of the Zillah Judge, the Sudder Adawlut was empowered with the sanction of Government to order such appeals to be preferred to such courts direct; but it was also provided that the Zillah Judges might call up to their own courts appeals received by such courts (Act VII, 1843, s. 8). The Government was authorized to appoint Assistant Judges to the new Zillah Courts, to whom the Zillah Judges might refer any appeals depending before them, excepting appeals from the Subordinate Judges and Principal Sudder Ameens (Act VII, 1843, ss. 8, 52). Appeals from the new Zillah Courts lay to the Sudder Adawlut (Act VII, 1843, s. 9). No Registers were assigned to the new Zillah Courts, and consequently the Registers' Courts no longer exist. Summary appeals were directed to lie to the new Zillah Courts from the Subordinate Judges and Principal Sudder Ameens (Act VII, 1843, s 8), and from the new Zillah Courts to the Sudder Adawlut Act VII, 1843, s. 9). In 1844 it was enacted that all suits within the competency of Principal Sudder Ameens and Sudder Ameens to decide, should be ordinarily instituted in their courts; but that they might be withdrawn at the will of the Zillah Judges, who might try them themselves, or refer them to any other competent Subordinate Court. The Zillah Judges were also empowered to admit summary appeals from the orders of Principal Sudder Ameens and Sudder Ameens rejecting original suits cognizable by them on the ground of any default (Act IX, 1844, ss. 1, 2, 4). In 1853 Act III of 1843 was repealed, and it was enacted that special appeals should lie to the Sudder Adawlut from any decision passed on regular appeal in any of the lower courts on the following grounds: viz., (1) A failure to decide all the material points in the case, or a decision contrary to law; (2) Misconstruction of any document; (3) Ambiguity in the decision itself; and (4) Substantial error or defect in procedure or in the investigation of the case. No such special appeal was to lie on matter of fact (Act XVI, 1853). (30) *The same, Criminal Judicature.*—The first alteration in the system of criminal judicature established at Madras in 1802 was in the constitution of the Fowjdarry Adawlut, which was changed in accordance with the provisions of the Bengal Regulations with respect to the Nizaumut Adawlut (Reg. IV, 1806, and Reg. III, 1807). In the year 1811 Magistrates were given an extended jurisdiction, and were empowered to inflict punishment on persons convicted by them, by imprisonment not exceeding one year with corporal punishment not exceeding thirty ratans, or by fine of 200 rupees (Reg. IV, 1811, s. 12). This power was not to be exercised by their assistants (Reg. IV, 1811, s. 13). In 1816 the offices of Zillah Magistrate and Assistant Magistrate were transferred from the Judge to the Collectors of the Zillahs and the Assistants to the Collectors (Reg. IX, 1816, ss. 3, 4); and the Magistrates were empowered to apprehend offenders, and in certain cases to pass judgment, to be referred to the Fowjdarry Adawlut (Reg. IX, 1816, s. 18). They were also authorized to punish persons guilty of petty thefts, and other minor offences, by stripes not exceeding eighteen ratans, imprisonment not exceeding fifteen days, or fine not exceeding 50 rupees (Reg. IX, 1816, ss. 32, 33, 35); in other cases to send them for trial to the Criminal Judge of the Zillah (Reg. IX, 1816, s. 34). In the same year the Judges of the Zillah Courts were appointed to be Criminal Judges of their respective zillahs, with power to punish offenders, in some cases, with stripes not exceeding thirty ratans; and, in cases of theft, in addition, with imprisonment not exceeding six months; in other cases with fine not exceeding 200 rupees (Reg. X, 1816, ss. 2, 7); but prisoners

continually be made to these provisions to ascertain what is the law administered by the courts of the Presidency. The principal Acts falling under this category are the following:—the "Indian Penal Code," which is the statute applicable in all

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charged with more serious offences, were to be committed for trial to the Courts of Circuit (Reg. X, 1816, s. 9). The Criminal Judges were also invested with similar powers to those before exercised by the Zillah Magistrates (Reg. X, 1816, s. 39). The Zillah Magistrates were, in 1818, empowered to delegate the whole or any part of their authority to their Assistants (Reg. IX, 1818). By the 53rd Geo. III, c. 155, s. 105, which was passed in 1813, and which was ordered to be in part promulgated at Madras in 1820, Zillah Magistrates were given a jurisdiction over British subjects residing in the interior for assaults and trespasses against natives; their convictions, however, in such cases were removable by Certiorari to the Supreme Court (Reg. II, 1820). In 1822 the Criminal Judges were authorized to take cognizance of burglary, and if not attended with violence to punish the offenders with thirty stripes and imprisonment with hard labour for two years; but if accompanied with violence, to commit them to the Court of Circuit. On such commitment the Court of Circuit was empowered to punish the offenders by thirty-nine stripes, and imprisonment in banishment for fourteen years, if the burglary were not attended with attempt to murder or wounding; but otherwise, on conviction, the trial was to be referred to the Fowjdarry Adawlut (Reg. VI, 1822, s. 2). The Criminal Judges were likewise empowered to punish for theft exceeding 50 rupees, and not attended with attempt to murder or with wounding, by imprisonment with hard labour for two years and thirty ratans; but otherwise to refer the trial to the Circuit Judge (Reg. VI, 1822, s. 3). The Criminal Judges were also authorized in certain cases to try and punish offenders for receiving or purchasing stolen goods (Reg. VI, 1822, s. 4), and convicts escaping from gaol (Reg. VI, 1822, s. 5). Thefts exceeding 300 rupees were, in 1825, declared not to be cognizable by the Criminal Judge, who was to commit offenders in such cases to the Court of Circuit (Reg. I, 1825, s. 90). The Assistant Judges appointed under Regulation I of 1827 were constituted Joint Criminal Judges of their Zillahs; and Subordinate Collectors exercising the powers of Magistrates were directed to be called Joint Magistrates (Reg. II, 1827, ss. 2—5). The Native Judges appointed under Regulation VII of 1827 were constituted Native Criminal Judges in the same year, and were ordered to be guided by the same rules as Criminal Judges, and invested with the same powers as Magistrates, but without jurisdiction over any Europeans or Americans (Reg. VIII, 1827); they were afterwards, in 1836, designated Principal Sudder Ameens (Act XXIV, 1836, s. 1). In 1827 a Regulation was also passed (Reg. X, 1827) for the gradual introduction of the trial by jury into the criminal judicature, and it was declared to be unnecessary for either the Judge of Circuit, or the Fowjdarry Adawlut, to require a Fatahwa from their law officers as to the guilt of the prisoner, that being established by the verdict of the jury (Reg. X, 1827, s. 33). In the year 1828 the use of the ratan was abolished, and the cat-of-nine tails substituted (Reg. VIII, 1828); and in 1830 the korah was also discontinued, and a like substitution ordered (Reg. II, 1830). Females were exempted from punishment by flogging in 1833 (Reg. II, 1833). Magistrates, Criminal, Joint Criminal, and Native Criminal Judges were, in 1832, respectively empowered to adjudge solitary imprisonment in all cases cognizable by them (Reg. XIII, 1832, s. 4). In the year 1833 Criminal, Joint Criminal and Native Criminal Judges were authorized to employ the Sudder Ameens in the investigation and decision of criminal cases, except in cases committable for trial before the Court of Circuit; such Judges to have power to overrule the decisions of the Sudder Ameens, who were, moreover, not to have any jurisdiction over Europeans or Americans (Reg. III, 1833, s. 2). In 1837 the Magistrates were authorized to send persons, not being Europeans or Americans, for trial, commitment, or confinement, to the Principal Sudder Ameens (Act XXXIV, 1837). The Fowjdarry Adawlut was empowered in 1840 to dispense altogether with the Fatahwa, but not with the Mahomedan law (Act I, 1840). In the year 1841 it was enacted that State offences should be triable by the ordinary criminal tribunals, but the sentences and proceedings in such cases were directed to be reported to the Fowjdarry Adawlut, who were again to refer their sentences to the Government for confirmation (Act V, 1841). In 1843 sentences passed by Justices of the Peace in the mofussil, or Magistrates, on British subjects residing in the provinces, for assaults and trespasses against natives of India, under the 53rd Geo. III, c. 155, s. 105, were made appealable in the regular course, according to the Regulations and Acts of Government, in the same manner as ordinary sentences passed in the ordinary exercise of a Magistrate's jurisdiction; and when so appealed, they were no longer to be liable to revision by Certiorari (Act IV, 1843). The Judges of the new Zillah Courts established in the same year were empowered to exercise all the powers of the Judges of the Courts of Circuit (Act VII, 1843, s. 26), which were then abolished; and they were directed to hold permanent sessions, for the trial of all persons accused of crimes formerly cognizable by the Courts of Circuit (Act VII, 1843, s. 27). It was made competent to the Sessions Judge in criminal cases, to avail himself of the aid of respectable natives, or other persons in either of the two following ways, viz.:—(1) By constituting them Assessors, or members of the Court, with a view to benefit by their observations, particularly in the examination of witnesses; or, (2) By employing them more nearly as a jury, to attend during the trial, to suggest points of inquiry, and after consultation to deliver in their verdict. The decision was, however, to be passed according to the opinion of the Judge, whether agreeing with the Assessors or Jury, or not; but if in opposition to their opinions, it was to be referred to the Fowjdarry Adawlut (Act VII, 1843, s. 32). He also had the power of overruling criminal sentences of Sudder Ameens (Act VII, 1843, s. 36). The criminal jurisdiction of the Zillah Courts constituted by the Regulations was transferred to the Subordinate Criminal Courts established under Regulations II and VIII of 1827 (Act VII, 1843, s. 1). It may be added that the Assistant Judges constituted under Regulation II of 1827, and who were to take the functions of the Criminal Judges, were, and are now, called Subordinate Judges. The power of the Magistrates was also extended in this year, and they were authorized to exercise the powers vested in Criminal Judges by Regulation X of 1816 concurrently with the Subordinate Criminal Courts (Act VII, 1843, s. 54): an appeal however was directed to lie from their sentences within one month to the Sessions Judge (Act VII, 1843, s. 55). In the year 1854 District Moonsifs were given a criminal jurisdiction in petty offences and petty thefts (Act XII, 1854). (31) *Amendment of the Imperial legislature in* 1853.—The Legislature established by the Act of 1834 lasted for twenty-seven years; but a considerable change was made in its character and constitution by an Act passed in 1853. The former Act was passed for a period of twenty years, and accordingly fresh legislation became necessary. It was provided by the new Act passed in 1853 (16 & 17 Vic., c. 95, s. 22) that certain Legislative Councillors should be added to the existing Council; that no law made by the Council should have force or be promulgated until the same had been assented to by the Governor-General whether he had or had not been present in Council at the making thereof; and that no such law should be invalid by reason only that the same affected any prerogative of the Crown, provided the previous sanction of the Crown thereto had been obtained. It authorized Her Majesty to appoint a commission in England to consider the recommendations and reports of the Indian Law Commissioners. The effect of the new Act was to enlarge the Council, when acting in its legislative capacity, by the addition of new members, called Legislative Members, of whom two were English Judges of the Calcutta Supreme Court, and the others were appointed severally by the local Governments. At the same time the fourth ordinary Councillor, who held under the former Act the corresponding office of Legislative Member, was made a member in the executive branch as well as in the legislative branch. Consequent upon these changes, discussion became oral instead of in writing; bills were referred to select committees instead of a single member; and legislative business was conducted in public instead of in secret. The system so introduced was considered by those who were well versed in it to be a very great improvement upon the former system. (32) *Restoration of Provincial legislatures by the Indian Councils Act of* 1861.—While, however, the Council was thus improved in two important features,—"*a.*" local representation of provinces and "*b.*" special adaptation for legislative functions,—it did not satisfy the ideas of many. Lord Canning wrote as follows in 1859:—There is no doubt that the introduction of a single member from each local Government has been a great advantage; but although an improvement has been thus made in the system antecedent to 1854, I do not think that it has been carried far enough; I do not think that the principle of representing the local Governments having been once admitted, the Governments of Madras and Bombay can be reasonably expected to be satisfied with the share which they at present have in any legislation directly concerning their own Presidencies, and I believe that by giving them a much larger share in it, careful local

ordinary criminal cases, containing some provisions not to be found in the corresponding English statutes; the "Code of Civil Procedure," the "Code of Criminal Procedure;" the "Indian Succession Act," which codifies the customs of

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measures may be facilitated and expedited without leading to any interference with measures of a general character or with the authority and responsibilities of the Governor-General in Council, and after discussing various proposals, he suggested the establishment of Local Legislative Councils. Accordingly when the Government of India passed in 1858 (21 & 22 Vic., c. 106) from the East India Company to the British nation, the opportunity was taken for a fresh departure in the work of legislation, and it was decided to empower the subordinate, or provincial, governments to frame and pass all minor Acts required for the administration of their local affairs, leaving the supreme council to supervise their work and to frame and pass all measures of imperial importance applicable to the empire generally. In 1861 therefore was passed the 24 and 25 Vic., c. 67, the "Indian Councils Act," which (as amended in some particulars by later statutes) is the law under which the present legislature subsists. A special feature in the new arrangement was the admission of a comparatively large number of non-official or independent members, whose local or special knowledge might be of service in advising the Government on matters of custom, or on special requirements of the people. (33) *The Penal Code and the two Procedure Codes.*—In the next three years after the proclamation of the Queen, first the Civil Procedure Code, and then the Penal Code, and almost immediately afterwards the Criminal Procedure Code, all of which had been long in preparation, were enacted. They applied to the whole empire, and all courts were governed by the procedures therein laid down, except the Supreme Courts and those established by Royal Charter. Those three Codes were passed respectively in the years 1859, 1860 and 1861. (34) *Institution of High Courts, amalgamating the Supreme and Sudder Courts.*—In 1861 a Bill was introduced into Parliament for the establishment of new High Courts. As far back as 1852-53, in the evidence which was given before the committee which sat on East Indian affairs, a strong opinion was expressed by those most competent to give it, that it was desirable with a view to the better administration of justice in India that the Supreme and Sudder Courts should, in each Presidency, be consolidated into one, so as to unite the legal training of the English lawyers with the intimate knowledge of the customs, habits, and laws of the natives possessed by the Judges in the country. The Act was speedily passed, and by it the Crown (24 & 25 Vic., c. 104) was empowered to establish, by Letters Patent, a High Court for the Bengal division of the Presidency of Fort William and also at Madras and Bombay; and it was enacted that thereupon the Supreme Courts and the Courts of Sudder Diwanny Adawlut and Sudder Nizaumut or Fowjdarry Adawlut should be abolished. The jurisdiction and powers of the High Courts were to be fixed by the Letters Patent. Thereupon charters were issued in 1862, and afterwards new charters in 1865, constituting the High Courts in Bengal, Madras, and Bombay. The first charters of the Madras and Bombay High Courts bear date the 26th June of 1862. The result of the establishment of the High Courts was to combine the Judges of the Supreme and Sudder Courts, and thereby to constitute a single tribunal. But as far as the policy of fusing two rival systems of judicial administration was concerned, no great change was thereby made. The Supreme Court still survived as a distinct branch of the High Court, viz., in its original side. The law or equity which it enforced on its original side was the same as would have been applied by the old Supreme Court, and was distinct from the rules of law, equity, and good conscience applied by the appellate side which succeeds to the old Sudder Court. The criminal and admiralty, testamentary, and matrimonial jurisdictions of the High Court in its original side were the same as those exercised by the tribunal to which it succeeded. Its criminal procedure, too, remained at this period distinct from that of the appellate side. The special innovation on this occasion was that the civil procedure of the old Supreme Court was done away with, and Act VIII of 1859 was substituted as the Code uniformly and universally applicable throughout India. (35) *Institution of Divorce Courts.*—In 1869 the High Courts were constituted by Act IV of 1869, passed by the Governor-General in Council, Courts of Divorce of persons professing the Christian religion. (36) *Recent changes in other courts.*—The establishment of these High Courts and the passing of the Indian Councils Act, 1861, led to a general reconstitution of courts of judicature throughout the country. In 1871 it was found expedient to consolidate and amend the law relating to the District and Subordinate Civil Courts in the Lower and North-Western Provinces of the Presidency of Bengal. Accordingly Act VI of that year was passed by the Governor-General in Council, called the Bengal Civil Courts' Act, 1871. In reference to Madras, Act III of 1873 contains provisions for the courts of the districts of that Presidency similar to those which are contained in Act VI of 1871; except that the Moonsif has jurisdiction up to Rupees 2,500. The Act extends to the whole Presidency, exclusive of those tracts which are subject to the agents for Ganjam and Vizagapatam. Act XV of 1882 repealed all prior enactments, and at present constitutes the Small Cause Courts of the Presidency towns. With regard to the Mofussil, Small Cause Courts were established (Act XLII of 1860) in 1860; and in 1865 the law relating to (Act XI of 1865) them was consolidated and amended. In 1869 the law relating to the appointment of Justices of the Peace was consolidated and amended by Act II of that year passed by the Governor-General of India in Council. The new Code of Criminal Procedure (X of 1882), sections 22 to 25, now contains the law on the subject. The law relating to Coroners in the Presidency towns was consolidated by Act IV of 1871. The Act was subsequently amended by Act X of 1881, and finally by the Criminal Procedure Code (X of 1882). (37) *Changes made by the recent Codes of Criminal Procedure.*—The first Code on the subject of Criminal Procedure was passed as above stated in 1861. It was the product of several generations of Indian statesmen. The system which they originally established was from time to time frequently altered, amended, and re-adjusted, and at length a very large number of regulations and Acts were consolidated and compressed into a single Code. Then followed various amendments of the Code itself, and, in course of time, Act VIII of 1869 consolidated these amendments. The result of the Amending Acts and of Act VIII of 1869 was not considered satisfactory. The consequence was that the Criminal Procedure Code of 1872 was passed, which came into force on the 1st of September of that year. It repealed the Code of 1869 and so much of the Code of 1861 as had not been repealed, and various other Acts bearing upon minor points of criminal law and procedure. The later Code (viz., Act VIII of 1869) had made extensive amendments in the earlier law without repealing it, so that two Codes were in existence instead of one. The Act of 1872 entirely re-arranged the law, and also reconstructed all the criminal courts throughout the mofussil. In respect of the courts the Code proceeded upon the same principle as the Bengal Sessions Judges' Act of 1871. It repealed a number of Acts and regulations which, in an obscure and fragmentary manner, established criminal courts, and placed the constitution and powers of those courts in a clear and distinct shape. The Code enacted that besides the High Courts there should be four grades of criminal courts in British India, exclusive of those of the Presidency Magistrates. The Code was amended by several Acts (viz., XI of 1874, X of 1875, and IV of 1877), and eventually a new Code (Act X of 1882) was passed to consolidate and amend the law relating to criminal procedure. The new Code applies to the whole of India, while Act X of 1872 excluded from its operation High Courts in their original criminal jurisdiction and the Courts of Police Magistrates in the Presidency towns. The new Code repealed, wholly or partially, a number of Acts, including Act X of 1875, which regulated the criminal procedure of the High Courts, and Act IV of 1877, which regulated that of the Presidency Magistrates. Act X of 1882 enacted that besides High Courts, and courts established under any other law than the Code, there should be five classes of criminal courts in British India, viz.:—"*a.*" Courts of Session; "*b.*" Courts of Presidency Magistrates; "*c.*" Courts of Magistrates of the first class; "*d.*" Courts of Magistrates of the second class; "*e.*" Courts of Magistrates of the third class. All criminal trials in British India were to be held before one or other of these courts. (38) *List of Chief Justices.*—The following is the list of the Chief Justices of Madras:—Sir Thomas Andrew Strange, sworn in 4th September 1801; Sir John Henry Newbolt, sworn in 10th July 1816; Sir Edmund Stanley, sworn in 4th September 1820; Sir Ralph Palmer, sworn in 7th June 1825; Sir Robert Buckley Comyn, sworn in 31st December 1835; Sir Edward John Gambier, sworn in 22nd May 1842; Sir Christopher Rawlinson, sworn in 15th April 1850; Sir Henry Davison, sworn in 11th March 1859; Sir Colley Harman Scotland, sworn in 24th May 1861; Sir Walter Morgan, sworn in 27th November 1871; Sir Charles Arthur Turner, sworn in 7th February 1879.

inheritance among Hindoo and Mahomedan families, and among Europeans who may have or who have not acquired an Indian domicile; the "Negotiable Instruments Act," a statute of importance to the trading communities; the Act for the "Registration of Assurances," which provides for the record of all deeds creating any interest or title in landed property; the "Joint Stock Companies Act," which resembles the English statute of similar title and purpose, and is valuable for India, were the majority of industrial undertakings can only be worked by associated capital; and Acts providing for the appointments of "Administrators-General" and "Official Assignees," and for the proper discharge of their duties.

362. Beyond the law of the Indian Legislatures again, there remains to be consulted a considerable portion of the English Statute Book. A list of the whole of this body of English statute law which may be held applicable to this Presidency is given in Vol. II, App. LII. The same statutes will be found printed 'in extenso' so far as they are not repealed in two volumes entitled "Statutes relating to India," published under the authority of the Legislative department of the Government of India.

363. In the foot-note [2] will be found a classification of the statute law of the Presidency. In Vol. II, App. LIII, will be found a complete alphabetical index to

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[2] Classification of the Statute Law of the Presidency.—In a recent publication by a late Advocate-General of this Presidency the statute law in force in the Presidency has been classified by subjects into ten main heads. The scheme is here summarized, as serving to furnish a compendious view of the whole body of statute law applicable to the Madras courts. (2) *Class I, Interpretation.*—It is desirable to know at the outset the precise meaning of the language employed by the legislature and the local areas to which its measures are applicable. Enactments therefore which may be placed under class I will deal with these preliminary topics. Both the Governor-General's Council and that of the Governor of Fort St. George have passed "General Clauses Acts;" and there are enactments among the English statutes applicable to British India, which deal with such topics as the date from which Acts of Parliament are to be deemed to take effect, and such matters. In this preliminary part may also be placed the "Laws Local Extent Act, 1874," a measure which has the effect of showing what laws are in force in those parts of British India administered under the regular law of the empire, in all that is to say except the "scheduled districts," and also of defining with exactness what these scheduled districts are. The law to be in force in the scheduled districts may be either in cases of doubt defined, or in some instances introduced from other parts of India, by notifications of the Government under Act XIV of 1874 ("the Scheduled Districts' Act"). So that there need, for the future, be no ambiguity as to what the existing law is in each portion of the empire. (3) *Class II, Governments and Legislatures.*—The next class may be held to consist of enactments which concern the constitution and powers of Governments and legislatures. If laws be regarded as commands of the sovereign authority to its subjects, the first question concerning law must be as to the person or persons who constitute that sovereign authority, the conditions and limitations subject to which, the mode in which, and the subordinate authorities through whom, it is exercised. In the case of British India the sovereign authority is the Queen and Parliament exercising such powers as the constitution allows to them respectively. This sovereign authority has constituted several subordinate authorities and invested them with powers. The Council of India, the Secretary of State for India, the Governor-General, the Governors, Lieutenant-Governors and Chief Commissioners, the Council of the Governor-General and the local Councils, all exercise different degrees of delegated authority, originating with the sovereign power. Subject to certain limitations and with power on an emergency to legislate by ordinance on his own responsibility the Governor-General governs British India, except certain specially administered portions, by laws passed in his council. The local Governments have power to legislate for the several Presidencies, but they cannot by their legislation affect any Act of Parliament of whatever date, or any Act of the Governor-General passed subsequent to 1st August 1861 (the date of the passing of the Indian Council's Act 24 and 25 Vic., c. 67); the area of their legislative powers is therefore restricted. The enactments dealing with the powers and procedure of these various authorities are extremely numerous, and their arrangement is intricate. (4) *Class III, Courts.*—Enactments under class III may deal with the principal agency by which the commands of the authorities just mentioned are carried out, viz., the courts. The result of a command, issued by a person who has power to enforce obedience, is to give rise to duties and rights; the duty being that of obedience on the part of the person to whom the command is issued, the right being that of every person, whose interests are affected by the obedience of others to the law, to have the law in that respect obeyed. In the infancy of society the offices of sovereign and judge are usually found combined in a single person; but at an early stage of civilization it becomes necessary to have a special machinery for ascertaining and declaring authoritatively what these rights and duties are. This machinery is afforded by the courts of law. In India the courts are the judicial committee of the Privy Council, the High Courts, the criminal courts created under the Criminal Procedure Code, the civil courts created for the several Presidencies, and provinces under different Civil Courts' Acts, (in Madras Act III of 1873), Courts of Small Causes, Police Magistrates in Presidency towns, Cantonment Magistrates Village Punchayet Courts, Military Courts of Requests, &c. There are enactments referring to all these tribunals. (5) *Class IV, Officials.*—It is necessary for the sovereign authority not only to have the means of ascertaining what are the duties and rights to which its commands have given rise among its subjects, but to have the means of enforcing them. Disobedience must be punished and the performance of duties must be exacted. This is done through the agency of officials, and enactments to be placed under class IV may accordingly deal with officials, especially the largest and most important class of officials, the army. Under this heading come not only the English Mutiny Act and the Indian Articles of War, but the enactments dealing with such matters as the administration of military cantonments, military bazaars, the volunteers, the winding up of deceased soldiers' estates, the disposal of lunatic soldiers, deserters, mutineers, &c. Besides Acts as to soldiers, there may be placed again in this class enactments dealing with other important officials, public accountants, the Administrator-General, Coroners, the Official Trustee, the Police, Secretaries to Government, revenue and other public servants. (6) *Class V, Revenue.*—Among the most important functions of Government are the imposition of taxes, the collection of revenue, and the regulation of coinage and other circulating medium. Enactments on these subjects may be placed in class V. This will include law, relating to customs, excise, land revenue, local rates, and cesses, water rates, port dues, stamps, court fees, coinage, and paper currency. (7) *Class VI, General Administration.*—A sixth class of enactments may deal with a miscellaneous class of subjects grouped under the heading "General Administration." In these enactments will be included those arrangements by which the general business of the State is carried on, public order is maintained, and the wants of society are provided for. (8) *Class VII, Rights.*—The above may be said to complete that portion of the law which deals directly with the Government, its constitution, the legislatures by which it speaks, the courts which interpret and apply its laws, the officials who enforce its orders, the pecuniary resources at its command, and its general arrangements for the control and well being of society. It is necessary however to pass to a new class of enactments or those which regulate the position of individual and their

the unrepealed Acts and Regulations of Indian Legislatures applicable to Madras, carried down to the end of 1884. The summary at foot [3] is an alphabetical list of the more important of these, or those most frequently referred to in practice. The law under subject-heads relating to Madras administrative machinery is shown in Vol. II, App. LIV. The rules having the force of law are given in the last Appendix of Vol. II.

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relations either to Government or to one another. Every law indicates, as already said, duties and rights; the duty of all subjects whom it affects to obey it, and a corresponding right on the part of those concerned to have it obeyed in every respect in which obedience to it affects their interests. These rights are frequently not expressed in words, but they are none the less recognized by law. There is no written law to the effect that a man is entitled to enjoy his own without interruption, nor until 1872 was there an express law rendering it a duty to fulfil a contract. But the courts have proceeded on the assumption that such laws exist, and that any one who is injured by their breach has a right of action against the wrongdoer. There are on the other hand some rights which are expressly conferred or defined by legal enactments. These may conveniently be enumerated under class VII. They may be divided as follows:—"*a.*" General rights of status, for instance the right which allows any one to change his religion without thereby forfeiting his rights to property; rights as to acquisition of domicile, the right to hold land, immunity from slavery, &c.; "*b.*" certain special privileges accorded to individuals or families, such for instance as those enjoyed in Madras by some members of the Prince of Arcot's family; "*c.*" rights, enjoyed by one person as against another, arising out of particular relationships, such as the rights 'inter se' of guardian and ward, husband and wife, parent and child, &c.; "*d.*" various rights to property arranged according to the mode in which in each instance they may be acquired, whether by prescription, succession, invention, contract, or otherwise. (9) *Class VIII, Breaches of duty.*—Class VIII may include Acts which deal with the preservation of rights given by Government to its subjects and which enforce their preservation by punishing breaches of duty. First may be considered such breaches of duty as the law punishes irrespective of the wish of the individual who happens to be aggrieved; in other words offences. The principal law dealing with these is the Indian Penal Code, but there are some other entirely penal enactments. Under this heading should strictly be ranged the serious detached penal clauses which many Acts contain, by way of enforcing the particular duty enjoined. The Customs' Consolidation Act prohibits smuggling, and enforces that prohibition by the imposition of various forfeitures and penalties on any person concerned in it. Under a second heading of this class would be ranged those breaches of duty which the law does not punish of its own motion, but for which it allows the individual aggrieved by the breach to obtain compensation if he pleases. These are called "injuries." Under this heading will be placed "breach of contract," the law prescribing the general duty of performing contracts, though the particular details of the contract are left in each case to the wish of the contracting parties. (10) *Class IX, Procedure.*—Class IX comprising enactments on procedure would conclude the account of the substantive law of the Presidency. It would include the Acts which regulate the procedure of the courts, civil and criminal, the rules by which admission of evidence in them is regulated, and the oaths or affirmations by which testimony is confirmed. (11) *Class X, Repealing Act.*—Under this special class may be placed the sole surviving general Repealing Act India Act XVI of 1874. The Act is one of a series the object of which is to clear the statute book of superfluous matter. Having repealed amongst other Acts of the preceding year (Act XII of 1873), it is liable to be itself repealed. Each of these Repealing Acts provides that the repeal by it of any enactment shall not affect any Statute, Act or Regulation in which such enactment has been applied, incorporated or referred to; and that the Act shall not affect the validity of any thing already done or suffered, or indemnity granted, or right or title already acquired or accrued, or remedy in respect thereof, or proof of any past act; nor affect any principle or rule of law, or established jurisdiction, form or course of pleading, practice or procedure, or existing usage, custom, privilege, restriction, exemption, office or appointment. The repeal in each instance can therefore have no effect on the existing law of the country, but merely reduces the bulk of the statute book by the removal of superfluous matter.

[3] ALPHABETICAL LIST OF PRINCIPAL REGULATIONS AND ACTS OF GENERAL APPLICATION IN THE PRESIDENCY.

Name of Act.	Number.	Years.	Legislating authority.
Abkarry—Madras Town	XIX.	1852	India.
Do. Mofussil	III.	1864	Madras.
	V.	1879	Madras.
Act—General Clauses	I.	1867	Madras.
Administrator-General	II.	1874	India.
Arms	XI.	1878	India.
Banks—Presidency	XI.	1876	India.
Civil Procedure	XIV.	1882	India.
	XV.	1882	India.
Cantonments	I.	1866	Madras.
Coffee Act	VIII.	1878	Madras.
Companies Act—Indian	VI.	1882	India.
Contagious Diseases Act	XIV.	1868	India.
Copyright	XX.	1847	India.
Coroner's	IV.	1871	India.
Criminal Procedure — High Court.	X.	1882	India.
Do. do. General.	X.	1882	India.
Courts—Madras Civil	III.	1873	India.
Do. Presidency Small Causes.	XV.	1882	India.
Court Fees	VII.	1870	India.
Elephants	I.	1873	Madras.
Emigration—Indian	XXI.	1883	India.
Do. Straits	XXI.	1884	India.
Evidence Act	I.	1872	India.
	XVIII.	1872	India.
Extradition	XXI.	1879	India.
European British Subjects	X.	1882	India.
Foreigners	III.	1864	India.
Game—Preservation of—Neilgherries.	II.	1879	Madras.
Hackney Carriage Act	III.	1879	Madras.
Justices of the Peace	X.	1882	India.

Name of Act.	Number.	Years.	Legislating authority.
Land Acquisition	X.	1870	India.
Laws, Local Extent	XV.	1874	India.
License	III.	1878	Madras.
	VI.	1880	India.
	III.	1880	Madras.
Limits—Alteration of—Zillahs	I.	1865	Madras.
Lunacy in Charter Courts	XXXIV.	1858	India.
Do. in Mofussil do.	XXXV.	1858	India.
Lunatic Asylum	XXXVI.	1858	India.
Local Funds	V.	1884	Madras.
Local Authorities Loan Act	XI.	1879	India.
Magistrates—Presidency	X.	1882	India.
Malabar—Offensive Weapons.	XXIV.	1854	India.
Do. Moplahs	XX.	1859	India.
	VII.	1869	Madras.
Marriage—Christian	XV.	1872	India.
Merchant Seamen	I.	1859	India.
	XIII.	1876	India.
Do. Shipping	VII.	1880	India.
	V.	1883	India.
Municipality—Madras	I.	1884	Madras.
	VII.	1884	Madras.
Municipality—Mofussil	IV.	1884	Madras.
Native Labour Contract	V.	1866	Madras.
Do. Passenger Ships	VIII.	1876	India.
Patents	XV.	1859	India.
Patterns	XIII	1872	India.
Penal Code	XLV.	1860	India.
	XXVII.	1870	India.
	XIX.	1872	India.
	VIII.	1882	India.
Pier Act	V.	1863	Madras.
	VII.	1871	Madras.
Police—Mofussil	XXIV.	1859	India.

364. HINDOO AND MAHOMEDAN CIVIL LAW.—Section 17 of the Act of Parliament 21st Geo. III, c. 70 (1781) provides that in disputes between the native inhabitants of Calcutta before the Supreme Court of that place their inheritance and succession to lands rents and goods, and all matters of contract and dealing between party and party shall be determined in the case of Hindoos (there called Gentoos) by the laws and usages of Hindoos, and in the case of Mahomedans, by the laws and usages of Mahomedans; and where only one of the parties shall be a Hindoo or Mahomedan, by the laws and usages of the defendant. By the 39th and 40th Geo. III, c. 79, s. 2, power was given to the King in Council to establish a Supreme Court at Madras, to consist of a like number of persons as the Supreme Court already established at Fort William, and with like jurisdictions. All these provisions were carried out by a charter subsequently granted. The charter granted pursuant to this statute was dated 26th December 1800; it established the Supreme Court at Madras, to consist of a Chief Justice and two Puisne Judges. This was further confirmed by Section 17 of 4th Geo. IV, c. 71 (1823), by which the Supreme Court at Madras is authorized to do execute perform and fulfil all such acts authorities duties, &c., as the Supreme Court at Calcutta is authorized to do execute perform and fulfil. Under Section 11 of the 24th and 25th Vic., c. 104 (1861) provisions thus applicable to the Supreme Court at Madras apply to the present High Court of Madras. Clause 19 of the Letters Patent issued in 1865 under the last enactment contain provisions conformable to the above. Section 16 of India Act III of 1873 (the Madras Civil Courts' Act) lays down for the other Civil Courts of the Presidency, that where in any suit or proceeding it is necessary for any Court under that Act to decide any question regarding succession, inheritance, marriage or caste, or any religious usage or institution; (*a*) the Hindoo law in cases where the parties are Hindoos, and the Mahomedan law in cases where the parties are Mahomedans, or (*b*) any custom (if such there be) having the force of law and governing the parties or property concerned shall form the rule of decision, unless such law or custom has, by legislative enactment, been altered or abolished, and (*c*) in cases where no specific rule exists, the Court shall act according to justice equity and good conscience. The Hindoo law that is thus administered is founded theoretically on the ancient Dharma Shastras, as appearing in the digests of Menoo and Yajnavalkya; the former dating before, and the latter dating after, the Christian era. Later commentaries however are of more practical importance. The principal of these works in Southern India are the Smrity Chandrica, the Daya Vibhaga, the Saraswatee Vilasa, and the Vyavahara Nirnaya. The Smrity Chandrica was written by Devanda Bhatta, during the existence of the Vijianugger dynasty in the Deccan, and his date is believed to have been about the middle of the thirteenth century. The only translation as yet published is that by Kristnasawmy Iyer, Madras, 1867. Dr. Goldstücker is stated to have left an edition and translation ready for the press, but it has not been printed. The Daya Vibhaga was written by Madhaviya, who was prime minister of several kings of the Vijianugger dynasty, and who flourished during the latter half of the fourteenth century. It has been translated by the late Dr. Burnell of the Civil

Name of Act.	Number.	Years.	Legislating authority.	Name of Act.	Number.	Years.	Legislating authority.
Police—Mofussil ...	V.	1865	Madras.	Railways—Indian ...	IV.	1879	India.
	I.	1872	Madras.		IV.	1883	India.
Do. Madras Town	III.	1862	Madras.		IV.	1884	India.
	VIII.	1867	Madras.	Registration	III.	1877	India.
Ports Act—Indian ...	XII.	1875	India.	Rent Recovery	VIII.	1865	Madras.
	XIII.	1878	India.	Scheduled Districts	XIV.	1874	India.
	IX.	1879	India.	Seals—Government	III.	1862	India.
	XVII.	1882	India.	Do. Official	VI.	1865	Madras.
Printing Presses and News-papers.	XXV.	1867	India.	Secretaries to Government ...	II.	1834	India.
				Ships Registry	X.	1841	India.
Prisons	V.	1869	Madras.	Stamps	I.	1879	India.
Prisoners	V.	1871	India.	State Prisoners	II.*	1819	Madras.
	IX.	1882	India.	Telegraph	I.	1876	India.
Do. Testimony	XV.	1869	India.	Treasure Trove	VI.	1878	India.
Publications—Oriental ...	III.	1882	India.	Vagrancy—European ...	IX.	1874	India.

Service. The Saraswatee Vilasa was written in the beginning of the fourteenth century by Pratapa Roodra Deva, one of the kings of Orissa. It has recently been translated by the Rev. Mr. Foulkes. The Vyavahara Nirnaya was written by Varadaraja. Of this author nothing is known except that he was probably a native of the Tamul country, and lived at the end of the sixteenth or beginning of the seventeenth century. This also has been translated by Dr. Burnell. There are also compilations by European authors. Evidence on Hindoo local custom and usage is taken by the courts, and such customs and usages are recognized unless they are immoral or opposed to public policy, or are in contravention of any Act of the Legislature. The authorities of Mahomedan law may be epitomized as follows:—(1) the Koran, with the Tafsirs or commentaries; (2) the Hadees or traditions, with the works on Ijma, the decisions of the companions of Mahomed and their disciples the Keeyahs, or conclusions deduced from a comparison of the Koran the Soonna and Ijma according to the exercise of private judgment; (3) general treatises on the fundamental principles of law and digests of general or special law, with their commentaries; (4) separate treatises on the law of inheritance; (5) the Fatahwa, or books of decisions. A sixth class may be formed of the works of European scholars. Local custom as distinguished from written law is of less practical importance among the Mahomedans than it is among the Hindoos.

365. LEGISLATIVE COUNCIL.—Under the Indian Councils Act of 1861 (24 and 25 Vic., c. 67), the local legislating authority [4] for the Presidency of Madras is vested in the Governor in Council; the council, at meetings held for the purpose of making laws and regulations, consisting of the ordinary members with the addition of the Advocate-General and such other persons, not less than four or more than eight in number, as the Governor may nominate. Not less than one-half of the persons so nominated are non-officials. At a meeting of the council for this special purpose, the Governor, or in his absence the senior civil ordinary member of council, presides, and business can only be transacted if the Governor or some ordinary member of council and at least four other members are present. In the case of a difference of opinion the President has, if necessary, a casting vote. The business of the meeting is confined to the consideration of measures already introduced into the council, or to granting sanction for the introduction of new measures. No measure affecting the public revenues can be introduced without the previous sanction of the Governor. Every law or regulation made by the council must, before it comes into force, receive the assent of the Governor in the first instance, and subsequently that of the Governor-General, and is eventually subject to be disallowed by the Crown.

366. Except with the sanction of the Governor-General previously obtained, no measure can be introduced (1) affecting the public debt of India, or the customs duties, or any other tax or duty now in force and imposed by the authority of the Government of India for the general purposes of such Government; (2) regulating any of the current coin, or the issue of any bills, notes, or other paper currency; (3) regulating the conveyance of letters by the post office or messages by the electric telegraph within the Presidency; (4), altering in any way the Penal Code of India as established by Act of the Governor-General in Council, No. XLV of 1860; (5) affecting the religion or religious rites and usages of any class of Her Majesty's subjects in India; (6) affecting the discipline or maintenance of any part of Her Majesty's military or naval forces; (7) regulating patents or copyrights; (8) affecting the relations of the Government with foreign princes or states.

367. Rules for the conduct of business at the meetings of council have been made under the provisions of Section 37 of the Act.[5] The most important of these

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[4] RULES HAVING THE FORCE OF LAW RELATING TO THE LEGISLATIVE COUNCIL.—Under Act 24 and 25 Vic., c. 67 (1861), s. 37 (Indian Councils Act), the following have the force of law in this Presidency:—(1) Rules for the conduct of business at meetings of the Madras Council for making Laws and Regulations, dated 27th February 1863; (2) amendment of Rules, dated 23rd November 1882. These are shown in extenso in the next foot-note.

[5] RULES FOR THE CONDUCT OF BUSINESS IN THE MADRAS LEGISLATIVE COUNCIL—(1) *Meetings.*—The word council as used in these rules shall mean the council of the Governor of Fort St. George assembled for the purpose of making laws and regulations. The word President as used in these rules shall mean the Governor, or in his absence, the

relate to the introduction of bills. When leave has been obtained for the introduction of a Bill either from the council when sitting or from the Governor during the adjournment, the Bill is printed, together with a statement of objects and reasons, and a copy is furnished to each member of the council. On the day fixed for the

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senior civil ordinary member of council present and presiding. (2) The Governor shall appoint the times and places of meeting of the council. (3) The President may adjourn, without any discussion or vote, any meeting or business, whether there be a quorum present or not, to any future day or to any part of the same day. (4) Notice of all meetings and adjournments shall be given to each member of the council by the Assistant Secretary. (5) Any business not disposed of at the time of any adjournment shall on the next meeting of the council take priority of all other business whatever at such next meeting, unless otherwise specially ordered by the Governor. (6) *Quorum, section 34 of the Act.*—If at the time appointed for the holding of any meeting or adjourned meeting, as aforesaid, or if at any time after the commencement of business at such meeting there be not present the quorum required by section 34 of the Indian Councils Act (that is to say, the Governor or some ordinary member of council and four or more members of council), then the members present shall, without proceeding to business of any kind, adjourn until again summoned by the Governor. In such case an entry shall be made in the journal of the council by the Assistant Secretary of the hour at which the adjournment may have taken place and of the names of the members present. (7) *Discussions.*—The President shall regulate the course of business at each meeting of the council, shall preserve order and regularity in the proceedings of the council, and shall decide all disputed points of order without debate. (8) Any member may notice a violation of order by drawing the attention of the President to it. When a member is thus addressing the President, any other member who may be then speaking, shall cease until the point of order is settled. (9) The decision of the President on a point of order shall be heard in silence and shall be final. (10) If two or more members speak at the same time, the President shall decide which member is entitled to pre-audience, and such decision shall not be open to question. (11) No member shall be allowed to speak except upon a question before the council. (12) *Petitions.*—Petitions to the council must relate to some Bill actually under the consideration of the said council. Every such petition shall be superscribed "to the Governor in Council" and shall be dated and signed by the petitioner or petitioners. It shall be in respectful and temperate language, and shall conclude with a distinct prayer. (13) All petitions as aforesaid shall be transmitted to the Assistant Secretary to Government in the Legislative department. (14) The Assistant Secretary shall make an abstract of every petition so received. (15) If, in the judgment of the Assistant Secretary, the petition be framed in conformity with Rule No. XII, he shall bring the petition under the consideration of the council by reading the abstract thereof, and the prayer or the substance of the prayer of the petition; whereupon such petition shall be dealt with in such manner as the council may deem proper. (16) If, in the judgment of the Assistant Secretary, the petition be not framed in conformity with Rule No. XII, or if he have reason to doubt the authenticity of any signature thereto, he shall certify the same on the back of the petition, and shall report the fact to the council; in which case the petition shall be rejected by the council, and the reason of such rejection shall be communicated to, and the petition returned to, the petitioner or petitioners. (17) Any member may make a motion upon any petition brought under the consideration of the council by the Assistant Secretary, and not rejected as aforesaid. If no motion be made upon such a petition a note of the fact shall be made by the Assistant Secretary on the petition, and it shall be deposited amongst the records of the council. (18) If a Bill be pending peculiarly affecting private interests, and any person whose interests are so affected apply by petition to be heard by himself or his counsel upon the subject of the Bill, an order may be made upon the motion of a member, allowing the petitioner to be so heard at a stated time, provided the petition be received by the Assistant Secretary before the matter to which the petition relates has been finally disposed of by the council. (19) In no other case or manner shall any stranger be heard by himself or his counsel. If the petitioner or his counsel do not appear at such stated time, such leave shall lapse. (20) Any member may move that the hearing of any petitioner or of his counsel shall cease if such petitioner or his counsel be unduly prolix or irrelevant. (21) *Bills.*—Any member may move at a meeting of the council for leave to bring in a Bill in accordance with the provisions of section 38 of the Act, provided that three days' previous notice of the title and subject of the Bill have been given to the Assistant Secretary. If the motion be carried in the affirmative the member shall send the Bill to the Assistant Secretary with a full statement of objects and reasons and any other papers which he may consider necessary. (22) The Assistant Secretary will forthwith cause the Bill, together with the statement of objects and reasons to be printed, and will send a copy for the use of each member. (23) On the day fixed for the introduction of a Bill, or on any subsequent day the principle of the Bill and its general provisions may be discussed. If the question be resolved in the affirmative the Bill may be referred to a select committee for report, and together with the statement of objects and reasons, shall be published in the Official Gazette. (24) The publication of a Bill may be suspended until it has been considered by the select committee and reported to the council, if the council at the time of referring it to the select committee shall so order. (25) A Bill may be sent to the Assistant Secretary when the council is adjourned, and the Governor may order its publication together with the statement of objects and reasons which accompanies it. In that case it shall not be necessary to move for leave to bring in the Bill, and if the Bill be afterwards introduced it shall not be necessary to publish it again. (26) When such period has elapsed from the publication of a Bill as the council may have ordered, the Select Committee shall make a report thereon. (27) Select committees may be appointed by the council, for any purpose connected with the business of the council, and may sit and may report on Bills referred for their consideration although the council is adjourned. (28) The Assistant Secretary shall cause all reports of select committees to be printed, and shall send copies of such for the use of each member. The report, and the Bill, or any sections thereof, if altered, shall at the same time be published in the Official Gazette. (29) The report of the select committee on a Bill shall be taken into consideration by the council as soon as conveniently may be: but not until a week after the report has been furnished to the members. (30) Any member wishing to propose an amendment affecting the principle or substance of a Bill as settled by the select committee, shall send the amendment to the Assistant Secretary at least three days before the meeting of the council at which the Bill is to be considered. The Assistant Secretary shall cause every such amendment to be printed, and shall send a copy for the information of each member. (31) If any amendment be proposed of which notice has not been given, the President shall decide whether such amendment shall be considered by the council at the meeting at which it is proposed or be deferred to the next following meeting. (32) Amendments shall be considered in the order of the sections to which they relate. (33) If no amendment be made by the council in a Bill as settled by the select committee the Bill may at once be passed, and sent to the Governor for his assent. If any amendment be made, the Bill shall not be passed at the same meeting but shall be brought forward again to a future meeting, and may then be passed with or without further amendment. (34) When it may not be deemed necessary to refer a Bill to a select committee under Rule XXIII, a day shall be fixed, for its consideration by the full council, provided that such period shall always intervene between the introduction of a Bill and its consideration by the whole council as will admit of its being published for a reasonable length of time. (35) After the passing of a Bill the Assistant Secretary shall revise and complete the marginal notes thereof. (36) Each Bill as finally settled by the council shall be signed by the President and forwarded immediately to the Governor for his declaration that he assents to or withholds his assent from the same. (37) The Governor shall communicate his assent or dissent to the council, by certificate in writing, on the face of the Bill, and the Bill with such certificate shall be lodged in the records of the council. (38) *Section 40 of the Act.*—The Governor shall transmit forthwith an authentic copy of every law or regulation to which he shall have declared his assent to the Governor-General; and no such law or regulation shall have validity until the Governor-General shall have assented thereto, and such assent shall have been signified by him to, and published by, the Governor in the Official Gazette. (39) The fact of the assent or dissent of the Governor-General shall be communicated to the council by the Governor personally or by letter, and shall be recorded in the journal of

introduction of a Bill, or on any subsequent day, the principles of the Bill and its general provisions may be discussed, and if necessary it may be referred to a select committee for report. All reports of select committees, as well as the Bill and the statement of objects and reasons, must be published in the official gazette, and copies must be furnished to the members of the council, before the measure is brought up for final consideration.

368. The work performed by the council from the date of its formation to the end of 1884 can be seen from App. XLIX, Vol. II. In Vol. II, App. L, is given a list of the Bills introduced into the council and subsequently withdrawn, for the same period. The law in detail relating to the Legislative Council is shown under that heading in Vol. II, App. LIV.

369. GOVERNMENT LAW OFFICERS.—The principal law officer of the Government is the Advocate-General. His duties, briefly put, are—(1) to advise the Government upon legal matters referred to him; (2) to appear for the Government in legal proceedings on the Original Side of the High Court in which the Government is interested; and (3) to appear at the Madras Sessions and prosecute in cases of murder, counterfeiting coin, and offences by Government servants against the Government.

370. The duties of the Government Pleader as at present constituted are—(1) to appear before the High Court, Appellate Side, when instructed to do so by Government in all appeals from the mofussil courts in suits in which Government or officers of Government are parties; (2) to appear before the same tribunal in support of convictions in criminal appeals from the mofussil courts when directed to do so by Magistrates or by the High Court, or in appeals from the mofussil courts from orders of acquittal when directed to do so by Government; (3) to appear for Government in civil or criminal cases in mofussil courts when instructed to do so; (4) to advise Government or the Board of Revenue on legal questions arising out of suits, &c., in the mofussil.

371. The Crown Prosecutor is standing counsel to Government in criminal cases arising within the original jurisdiction of the High Court. It is his duty to appear for the prosecution on behalf of Government and conduct all the cases at the High Court sessions; except that in cases of murder, and certain other offences, in which the Advocate-General is required to appear on behalf of Government, he acts as the Advocate-General's junior. It is also the duty of the Crown Prosecutor to appear as Counsel for Government and conduct Government prosecutions before the Presidency Town Magistrates; the Government Solicitor furnishing him with the necessary briefs. The Crown Prosecutor is the officer to whom commitments for trial before the High Court are made by the committing Magistrates. The

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the council. (40) The disallowance of any law or regulation by Her Majesty shall in like manner be communicated to, and recorded by, the council. (41) It shall not be competent to any member of the council to make any motion upon or otherwise bring under the consideration of the council, the exercise by Her Majesty, the Governor or the Governor-General of their prerogative of disallowing a Bill by withholding their assent from it. (42) *Order of Business.*—After the President shall have taken the chair, petitions and other communications received by the Assistant Secretary shall be reported, and notices of Bills given by Members intending to introduce them. The council shall then proceed to the disposal of the business left unfinished at the last meeting, unless otherwise specially determined by the President. (43) Strangers may be admitted into the Council Chamber during the sittings of the council on the order of the President. Application for orders of admission is to be made to the Assistant Secretary. (44) The President, on the motion of any member, may direct at any time during a sitting of the council that strangers withdraw. (45) *Assistant Secretary.*—The duties of the Assistant Secretary to Government in the Legislative department shall be—(*a*) To take charge of all the records of the council; (*b*) to keep the books of the council; (*c*) to keep a minute book, in which he shall enter at the time all the proceedings of the council in the order in which they occur, and the names of the members present thereat; (*d*) to superintend the printing of all the papers ordered to be printed; (*e*) to assist the council in such manner as they may order, and to assist any member in framing a Bill which he proposes to introduce; (*f*) to write all letters ordered by the council to be written. (46) It shall be the duty of the Assistant Secretary, after the passing of a Bill, to revise and complete the marginal notes thereof. (47) *Books and Records—Journal of Council.*—A journal shall be kept, in which all the proceedings of the council shall be fairly entered. The journal shall be submitted after each meeting to the President thereof, for his confirmation and signature, and when so signed, shall be the record of the proceedings of the council. The proceedings of each meeting of council shall be published in the next Official Gazette, after such meeting, or as soon afterwards as can conveniently be arranged. (48) *Documents how recorded.*—All documents ordered to be printed or recorded shall be referred to in the journal, and, after being identified by the signature of the Assistant Secretary on the original documents, shall be kept with the records. (49) *Register of Petitions.*—A register shall be kept of all petitions received by the council, in which shall be entered the date of receipt by the Assistant Secretary, a general designation of the petitioners, the object of the petition, the manner in which it has been disposed of, and the date of disposal. (50) *Register of Letters.*—A register and index of all letters received and despatched shall be kept. (51) The President for sufficient reasons may suspend any of the foregoing rules. (51*a*) Any Bill respecting which no motion has been made in the council for two years may, by order of the President, be removed from the list of business.

Crown Prosecutor is also an ex-officio Public Prosecutor for the purposes of the Criminal Procedure Code, and, amongst other matters, as such, when directed by the Government to do so, presents appeals to the High Court from orders of acquittal, or dismissal, or discharge, made by Presidency Magistrates.

372. To each District Court is attached a Government Vakeel, [6] who is a member of the local bar. He is required to appear and act in all Government suits in the courts of the District Judges' stations. Besides the regulated fees in each suit he receives a salary of Rupees 21 a month.

373. The functions and duties of the Government Solicitor are shortly these:—to advise the different departments and officers of Government in matters on which the opinion of the Advocate-General may not be required; in cases where that officer's opinion is required, to lay the papers before him, and on receipt of his opinion to forward a copy of it to Government; to prepare contracts for the several departments of Government, and all deeds and conveyances to, and in some cases from, Government; to furnish the Crown Prosecutor with the necessary briefs in police cases in which that officer has to appear, i.e., all cases in which the prosecution is instituted or carried on by or under the orders or with the sanction of Government; to appear at the police courts and instruct the Crown Prosecutor in such cases; to send the necessary briefs to the Advocate-General for the quarterly sessions of the High Court in all cases of murder, coining and other cases in which the Crown is immediately interested, and to appear in court on the trial of such cases; and to institute, defend and conduct all civil suits and proceedings by or against Government, and, where the sanction of Government has been obtained, by or against its officers.

374. The duties of Clerk of the Crown are—(1) to draw up indictments against prisoners committed to stand their trial at the High Court sessions; (2) to make and furnish copies of all depositions, exhibits, &c., required by parties to sessions cases, whether for the prosecution or defence; (3) to draw up warrants and sentences passed on prisoners during the sessions; (4) to prepare lists of special and petty jurors and settle the lists; (5) to draw up and issue jury rules; (6) to take recognizances of witnesses and bail bonds of prisoners; (7) to issue subpœnas for all witnesses on behalf of prisoners in jail, prosecutors, and the Crown; and (8) to attend in the High Court on all applications on the Crown side of which he is given notice.

375. The Administrator-General [7] is appointed by the local Government, and must be a member of the Bar of England or Ireland or of the Faculty of Advocates in Scotland. He is not an officer of the High Court, but obtains from that court letters of administration authorizing him to deal with and dispose of estates committed to his custody. Probate or letters of administration granted to the Administrator-General extend to property throughout the whole Presidency, including Coorg, Mysore, Travancore, Cochin, Poodoocottah, Bunganapully, Sundoor, and the Nizam's Dominions. He gives general security to the Secretary of State for the due execution of his office, and no special security is required to be given by him to the High Court when administrations are granted by that court to him. The duties of the office are detailed in Government of India Act II of 1874. Under Section 15 the Administrator-General is entitled generally to letters of administration, unless they are granted to the next-of-kin of the deceased. By Section 16 he is required within a reasonable time after he shall have had notice that a person (other than a Hindoo, Mahomedan, or Booddhist, or a person exempted under the Indian Succession Act, 1865, Section 332, from the operation of that Act) has died and that the deceased has left assets within the Presidency, or in any of the places above mentioned, to take steps to apply for letters of adminis-

[6] RULES HAVING THE FORCE OF LAW RELATING TO VAKEELS.—Under Act XVIII of 1879, sections 1, 6, 7, 27, and 37 (Legal Practitioners' Act), the following have the force of law:—(1) Section 1, extension to Madras—Judicial Notifications, Fort St. George Gazette, 20th September and 7th December 1881; (2) Sections 6, 7, and 27, High Court Rules—Fort St. George Gazette, 16th March 1882; (3) Section 37, Rules for the Conduct of Examinations—Judicial Notification, Fort St. George Gazette, 25th April 1882.

[7] RULES HAVING THE FORCE OF LAW RELATING TO ADMINISTRATOR-GENERAL.—Under Act II of 1874, section 57, the following have the force of law:—(1) Rules—Fort St. George Gazette, dated 16th May 1856, page 757. (2) Rules—Judical Notification, dated 9th October 1878; Fort St. George Gazette, dated 29th October 1878, page 626. (3) Section 57, modification of certain rules for the office and duties of the Administrator-General—Fort St. George Gazette, dated 14th December 1881, page 727.

tration, and this whether the deceased has left a will or not, provided that the assets are of greater value than Rupees 1,000, and provided that no person shall within a month after the death have applied within the Presidency for probate of a will or for letters of administration of the estate. If the assets do not exceed 1,000 rupees in value in the whole, the Administrator-General is not bound to act, but he may either grant a certificate to some person entitled to a share of the effects of the deceased entitling such person to receive the property mentioned in such certificate not exceeding Rupees 1,000, or may take charge of the estate himself without letters of administration. In certain cases, such as where danger is to be apprehended of misappropriation, deterioration or waste of an estate, the Administrator-General may be directed by the court to apply for letters of administration to the effects of any person whether Hindoo, Mahomedan, Booddhist or not, and power is also given to the Administrator-General to collect and hold all such assets until the right of succession or administration is ascertained; and if no person appears according to the practice of the court and entitles himself to probate of the will, or grant of administration as next-of-kin of deceased, or if the person obtaining the order of administration neglects to give the security required of him, the court is bound to grant letters of administration to the Administrator-General. Any private executor or administrator may, with the consent of the Administrator-General, by an instrument in writing, under his hand, transfer all estates, effects, and interests vested in him by virtue of such probate or letters to the Administrator-General, and the Administrator-General shall have the rights and be subject to the liabilities which he would have had and to which he would have been subject if probate or letters of administration had been originally granted to him. As soon as the Administrator-General takes charge of the estate, the fact is advertised in the gazette and in the public papers, and creditors are called upon to prove their claims. They are required to state the amounts and other particulars, and to support their claims by such evidence as, under the circumstances of the case, the Administrator-General is reasonably entitled to require. When the Administrator-General has given such notices as are given by the High Court in an administration calling upon creditors and others to send in their claims to him, he is at liberty, at the expiration of the time specified in such notices, to distribute the assets or any part thereof in discharge of such lawful claims as he then knows of; and no notice of any claim shall affect him, unless proceedings to enforce such claim are commenced within one month after the giving of such notice and prosecuted without unreasonable delay, to pay the cost of the suit. If in any suit against the Administrator-General judgment is pronounced in favor of the plaintiff, he is nevertheless entitled only to payment out of the assets equally and rateably with the other creditors. The Administrator-General like any other executor or administrator is bound to pay all creditors rateably or preferentially according to the law governing the distribution. The following are preferential payments :—(1) Funeral expenses; (2) death-bed charges; (3) fee for medical attendance; (4) board and lodging for one month prior to death; (5) expenses for obtaining probate or letters of administration; and (6) wages for services rendered to deceased within three months of his death by any laborer, artizan, or domestic servant. After this comes payment of other debts, which are on an equal footing. The Administrator-General is bound to keep the accounts prescribed by the Act and to allow all persons who may have occasion so to do to inspect them. He is bound to furnish half-yearly schedules of estates under his charge in form prescribed by the Act, and these schedules are published in the Fort St. George Gazette. Three copies are sent to Government for transmission to the Secretary of State for India for the information of persons in England who are interested in the matter. The Administrator-General of Madras is entitled to a commission of 5 per cent. (except in the case of officers and soldiers dying on service when the commission is 3 per cent.) on the assets, and no person other than the Administrator-General acting officially is entitled to charge any commission or agency charges for anything done as executor or administrator under any probate or letters of administration granted by the Supreme or High Court in Madras since the passing of Act II of 1850, or by any court under the Indian Succession Act, 1865.

376. The Sheriff of Madras is appointed by the Governor in Council under the same letters patent which established the Supreme Court of Judicature at Madras

in 1800. That portion of those letters patent which relates to the office of Sheriff of Madras has not been repealed by the letters patent establishing the present High Court. The appointment is an annual one and dates from the 20th December. The duties of the Sheriff, as defined by the letters patent of 1800, are "to execute all the writs, summonses, rules, orders, warrants, commands, and process of the court, and make return of the same together with the manner of the execution thereof to the court." Section 636 of the Code of Civil Procedure, however, provides that "notices to produce documents, summonses to witnesses, and every other judicial process issued in the exercise of the ordinary or extraordinary original civil jurisdiction of the High Court, and of its matrimonial, testamentary, and intestate jurisdiction, except summonses to defendants issued under Section 64, writs of execution and notices under Section 553 (notices of appeal) may be served by the attorneys in the suit, or by persons employed by them, or by such other persons as the High Court by any rule or order from time to time directs." Rule 55 of the Rules of the High Court, Madras, Original Side, dated the 3rd May 1878, contains a similar provision, with a proviso that "parties appearing in person must cause all notices, summonses, writs, and other process to be served by the Sheriff." The Sheriff also serves summonses to witnesses and executes attachments and other process issued by the court for the relief of insolvent debtors and by the Crown Side of the High Court. He presides over the preparation of the annual lists of persons qualified and liable to serve on juries, and issues summonses to the jurors who are to serve at each quarterly criminal sessions of the High Court. He attends personally in court during the continuance of the sessions, and is responsible for the maintenance of discipline and order in court. He convenes and attends personally at public meetings.

377. The office of Coroner of Madras was first created about the year 1800. The duties are now regulated by the Coroner's Act, No. IV of 1871, as amended by X of 1881 under which the Coroner has to inquire into cases of death occasioned by accident, homicide, suicide, or suddenly by means unknown, and into the cause of the death of any person being a prisoner lying in jail. The police authorities bring to his notice all cases of death occasioned in the ways just mentioned, and he thereupon orders a jury to be assembled at the spot where the body is and holds an inquest on view of the body. Madras is divided into four medical districts, and the surgeon in charge of the district in which an inquest is to be held is generally summoned by the Coroner to give professional evidence. The Coroner's jurisdiction extended till lately over an area of 28 miles and was conterminous with the Presidency police and municipal limits. Since July 1882 some of the outlying portions of Madras have been excluded from that jurisdiction, and the portion so excluded placed under the police. Murders in the Presidency town are rare, for during the 18 years, 1866 to the end of 1883, only 59 cases have occurred in which the Coroner has been called upon to hold inquest. Drowning seems to be the mode most resorted to by suicides; since the year 1868 to the end of 1883 there have been 415 cases. During the same period there have been 56 cases of suicide by hanging, and only 20 by cutting the throat. Suicide by poison shows only 16 cases during this period. During the first twenty years after the creation of the office 413 inquests were held, or an average of about 20 a year. For the twelve years from 1840 to 1852 there was a total of 1,217, or an average of 101 a year. For the twenty years from 1853 to 1872 the number had reached 3,403, or an average of 170 a year. For the four years from 1873 to 1876 the total number of inquests was 707, or an average of 176 a year. The number of inquests held in the seven years from 1877 to 1883 was 1,157, or an average of $165\frac{2}{7}$ a year, exclusive of 105 adjournments.

378. The law in detail relating to the Government law officers is shown in Vol. II, App. LIV, under the heads "Administrator-General," "Advocate-General," "Coroner," "Clerk of the Crown," "Government Pleader," "Government Solicitor," "Public Prosecutor," "Official Trustee," and "Sheriff."

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

AGRICULTURE.

379. INTRODUCTION.—The Madras Presidency is not a naturally fertile country. Over the greater part of its area, artificial irrigation is impossible, and cultivation is then entirely dependent upon the local rainfall, which rarely exceeds 40 inches in the year, and is liable to fail both irregularly and at recurrent intervals. The Malabar coast is the only part where the natural rainfall, brought by the south-west monsoon, may be trusted both for its amount and its regularity. Other districts, such as Bellary, are also dependent upon this monsoon; but in their case the rain-clouds have spent themselves in passing over the barrier of the Western Ghauts, and cultivation is to a certain extent a matter of chance. Over the greater part of the Presidency, the rainy season is caused almost equally by both monsoons. The first rains, generally falling towards the end of May, allow of cultivation being begun and it is continued until after the north-east monsoon rains have ceased in December. The deltas of the three great rivers, the Godavery, Kistna, and Cauvery, are the only tracts along the eastern coast which artificial irrigation puts beyond the reach of periodic scarcity. According to the official principle of classification, the cultivated area is divided into "dry" and "wet" lands. Dry lands, or those which are solely dependent upon local rainfall, cover about 80 per cent. of the total; wet lands, which are those irrigated from river-channels or tanks by the natural flow of the water, about 15 per cent.; about 2 per cent. of the dry lands are gardens irrigated by water artificially raised from wells, &c. A balance of 3 per cent. is left for fallows and pasture lands.

380. DISTRIBUTION OF SOILS, AS AFFECTING AGRICULTURE.—The greater part of the Presidency is covered with soils that were originally formed by the disintegration of rocks of the metamorphic and igneous systems. The soils derived from the rocks of the first-mentioned system, gneiss, mica, quartz, &c., which prevail the most widely, are very inferior; especially when, as is the case in many parts of Southern India, they occur as sedentary soils, that is to say, when they rest on the rock from which they were originally formed. The extensive ranges of mountains known as the Pulneys, Anamullays, and Neilgherries are composed of granitic rocks, the decomposition of which, especially where the felspar occurs as orthoclase, affords a productive soil in situations where the rainfall is not excessive. The minor ranges of hills, of which there are many scattered over the Presidency, consist chiefly of syenite and quartz rocks; the former yields on decomposition a productive soil, but the soils derived from the latter are always inferior, and sometimes perfectly sterile. The area of sedentary soil derived from inferior rocks is very considerable, but it fortunately happens that owing to the gigantic scale on which the forces of nature have operated in Southern India, there is a wide extent of transported soils, formed of the disintegrated portions of the rocks of other formations. Of this class is the black cotton soil, an alluvial soil met with all over the Presidency, sometimes in isolated patches of only a few acres in area, and sometimes in large plains of hundreds of square miles. The depth of this soil varies from 12 inches to from 12 to 15 feet. It is closely allied to the black earth of Southern Russia, and possibly occupies the sites of dried-up lakes. Its most characteristic form is a black or bluish clay tenacious in wet weather and deeply seamed in dry weather. From its unusual power of absorbing and retaining moisture, this soil is on the whole in

great request. It contains very little organic matter, usually not more than 4 per cent. It frequently has underlying it a deposit of concretionary limestone which, if the soil is shallow, reduces its agricultural value considerably. Another characteristic soil met with in all parts of the Presidency is the red soil, so called from its peculiar red appearance, derived from a large admixture of the peroxide of iron. This soil varies very considerably in its character; in some places forming extensive plains with hard-crusted surface almost incapable of producing even indigenous vegetation and verging on laterite, and in other places being friable, open, easily worked, very hygroscopic from the oxide of iron it contains, and generally fertile. As a rule, the most fertile tracts of land occupy low situations; most of them are of alluvial origin, and from the facilities they afford for irrigation, they generally form the irrigated area. The land most in need of irrigation from its extreme dryness and the natural poverty of its original constituents, is obviously the most difficult to provide with irrigation water, but such land constitutes three-fourths of the food-producing area of the country.

381. UTILIZATION OF THE SEASONS.—Over the greater part of the Presidency the active operations of cultivation begin with the rains brought by the south-west monsoon towards the end of May or early in June; although should earlier showers fall they are made use of in ploughing and breaking up the land. Sowing begins in some places in June and from thenceforward continues in different localities up to December. In the districts which owe their principal rain to the south-west monsoon, the chief crop is sown in June and harvested in September. Almost all over the Presidency crops other than those just mentioned are sown in September and harvested in January and February, being brought to maturity by the rains of the north-east monsoon. These crop seasons correspond respectively to the 'khareef' and 'rubbee' of Northern India. All cultivation, whether artificially irrigated or not, depends more or less on the monsoon seasons. Land irrigated from wells is naturally the least so, and land irrigated from tanks, which do not in all cases get their supply from the immediate rainfall, are more independent than unirrigated land. The unirrigated land is absolutely dependent on the falling rain. Irrigated land, especially that under wells, has sometimes two crops in the year. Two crops can be obtained from unirrigated land in special localities only.

382. TREATMENT OF IRRIGATED LAND.—Irrigated land forms about 15 per cent. of the area under occupation. It is watered exclusively from rivers, river-channels, and tanks, and in most instances the water flows upon the land by gravitation. The area of land irrigated by channels taken directly from rivers is extremely small compared with the area watered from river-channels connected with dams or other regulating works. The reason of this is that the beds of most of the rivers on the plains are so frequently changed, or are situated in such deep valleys that it is difficult to get the water thence to the cultivated land. Hence the practice of putting dams or anicuts across rivers. Dams are constructed where there is space for the storage of water, and where the water can be raised to a height sufficient to command a suitable area of arable land. Probably the supplies of river water might with advantage be cut off further inland than at present. From the dams the water passes along channels to the cultivated land; the beds of these channels being kept so high that the water will flow by gravitation through sluices into the minor distributing channels. In many instances the irrigation water cannot be secured at a sufficient height, and the water is then raised from the channel by a picottah or similar means. Tanks are always placed in situations where the surface drainage of a more or less considerable area of country naturally flows or collects. Sometimes they are natural and form shallow lakes; but as a rule they are artificial and occupy a situation on land having a slight slope. In selecting the position for a tank the object is to secure for the upper slope a large collecting area and to command on the lower slope a sufficient area of arable land for watering by gravitation. Artificial tanks are always more efficacious than natural tanks equally supplied with water, because the land irrigated from the artificial tank is from its position generally well drained, while that irrigated from the natural tank is frequently altogether without drainage, being but a portion of the bed of some original lake. Almost the only crop grown on this description of land is paddy. Where an abundance of water is available throughout the year, two crops are grown

annually, but most of the land as already said produces only one crop. The irrigation water is usually supplied on each occasion to a depth of from 1 to 6 inches, and the supply is made according to its abundance on every day, every other day, or every third day, during the growth of the crop. A depth of from 8 to 12 feet of water may be taken as the common consumption in the growth of a complete crop of paddy. In many parts of the Presidency the practice is to sow the paddy broadcast on a semi-liquid soil which is brought into this state by frequent waterings and stirrings. The practice is also common of transplanting young seedling paddy plants from nursery beds into the field. Beyond weeding and watering, the paddy land receives no attention while under crop. Some varieties of paddy are six months on the ground, others only four months. The crop is cut when dead ripe, and is thrashed by striking the sheaves on a log of wood and by the treading of cattle. The agricultural practice in dealing with irrigated land is said to be capable of improvement in the direction of a more economical use of the water; as long however as the ryot is unable to apply manure to his irrigated land he is under the necessity of using a large quantity of irrigation water in order to secure silt in its place. There are many practical difficulties in the way of procuring manure; there is also a deficiency of capital to invest in it.

383. TREATMENT OF UNIRRIGATED LAND.—Eighty per cent. of the food-producing area of the Presidency consists of dry land. A very large area of this tract is covered by soils of the lowest value; there are however considerable areas of really good soil. The dry lands are in the hands of poorer cultivators than the wet lands, and it is probable that their cultivation is more susceptible of improvement than that of the wet lands. The black soils are usually cropped with cotton and cholam. The red soils are variously cropped; in some districts they constitute the chief cotton-producing areas, but when good they are cropped with the different cereals. The grey soils produce varagoo, korraloo, and inferior cumboo, cholam, &c. Sometimes two or more crops are sown simultaneously on the same ground, so that if one fails the other may succeed; choice being made of crops that do not all bear at one time. The crops grown on the unirrigated land are sown both broadcast and in lines, but the former is more usual. The tillage consists usually of ploughing in various directions; the native plough stirs but does not turn over the soil and seldom penetrates to a greater depth than three inches. The actual operation of sowing is either performed by broadcasting the seed over the land by the hand, or by the aid of a drill described below. During the growth of the crop but little is done in after-cultivation or hoeings. The crops are all harvested by the hand, the work being paid for in kind.

384. TREATMENT OF PASTURE LAND.—Grass is allowed to grow spontaneously in all parts of the village area where it will not interfere with other crops. Special grass-crops raised from seed, or developed by irrigation and manuring, are as yet unknown in this Presidency, the remuneration not proving sufficient. Ryots will frequently leave permanently uncultivated the least productive portions of their holdings for the sake of giving a better pasture to the live-stock required for farm labour than is to be got in the poramboke land. Or they will leave the land temporarily fallow in the same way, with a view to combining pasture with passive renovation of the soil. With the exception however of certain cases, yearly diminishing, where a light assessment is placed on arable land reserved for pasture, the ryots have to do this at their own expense, paying full assessment for the lands thus employed. The principle of deriving remuneration from grass and fodder crops in the form of farm manure will doubtless be more acted upon as capital increases. There is no want of intelligence on the part of the cultivator.

385. TREATMENT OF GARDEN LANDS.—Garden land is land irrigated with water artificially raised from wells, tanks, or other sources. The crops usually grown are those that will mature satisfactorily with from five to eight waterings in a month. The water is raised by cattle-power and manual-power only, horse-power or steam-power not being as yet in use. For very low lifts a bale is used, that is to say, a bucket suspended by two ropes, one of which on either side is held by a man. In baling the bucket is allowed to drop into the water, and when full swung up to the height needed and capsized. For higher lifts, up to about 12 or 13 feet,

the picottah is used. This is a horizontal pole balanced on an upright post of a height regulated by the length of the horizontal pole. The arrangement is something like that of the ordinary weighing balance. At the end of the horizontal pole which projects over the water, an upright rod is attached, generally of bamboo, and to the lower end of this the bucket is fastened. In working the picottah, an alternate up-and-down motion is given to the arms of the horizontal pole, a bucket being brought up each time the pole dips and rises. The motion is generally produced by the backward and forward walk of a man along the pole; as he advances along the pole towards the water the bucket dips and fills, and as he walks back in the contrary direction, it rises to the required elevation, and is there guided and capsized by another labourer. Where the lift is great two and sometimes three men are employed on the horizontal pole. In cases where the lift is moderate a man on the pole is frequently dispensed with, a heavy ball of clay only being attached to the end of the pole opposite to that at which the bucket rod is attached. In this case a single man stands over the well, pushes down the bucket, guides it, and capsizes it at the point of discharge. For low lifts the picottah works at a very moderate cost, especially when worked by the cultivator himself. The picottah in use in different districts varies in construction. In well lifts, which are too high for the picottah, that is to say for depths from 12 to 40 feet, the "Single Mhote" is usually employed worked by cattle. This arrangement consists of a horizontal roller fixed over the well on uprights of three or four feet in height, while a rope travels over the roller; to one end of the rope a skin bucket is attached, the other being fastened to the yoke of a pair of cattle. At the place where the water is to be discharged from the bucket there is a cistern, and in front of the cistern an inclined path of 20 or 30 feet in length according to the depth of the water. When raising the water the cattle walk down the slope, and when the bucket descends to the water they are backed up again. In this way, the cattle alternately ascending and descending the slope, the bucket is filled and brought to the surface. The arrangement is very simple, but is rude and probably trying to the cattle, the backward journey being often up a very steep slope. The cost of raising the water by this method is high. An improved lift has lately been introduced, by the aid of which the water can be raised at one-half the cost. It is very desirable that garden cultivation should be extended, as a check on disastrous consequences of long continued droughts. At present as already noted only some two per cent. of the occupied area of the Presidency is what is called "garden land."

386. Rotation of Crops and Fallows. — There is no established system of rotatory crops, but the principle of not overstraining the resources of the soil is fully understood by the ryots. A crop requiring little nourishment generally succeeds an exhausting crop, and fallows are common in the case of inferior soils. The liberty allowed to the ryots of relinquishing and taking up lands frequently brings the principle of leaving lands fallow into imperceptible play. Rotation and fallows are practised mainly in regard to unirrigated lands and irrigated lands planted with sugar-cane; in the ordinary irrigated lands, which generally consist of small holdings, manuring is more frequent and is considered sufficient to secure a good crop without rotation. Considerable care is bestowed on manuring garden lands under wells. Lands near villages are better manured than those at a distance, for obvious reasons. The following distribution has been suggested as what would probably best suit the requirements of the country generally: under restorative crops, 5·3 per cent.; under exhaustive crops, 75·5 per cent.; under fallow or water, 19·2 per cent.

387. Agricultural Implements.—In the southern portion of the Presidency and in the Northern Circars the only implement in use is the plough common to eastern countries. This plough stirs the soil but does not invert it. In some districts containing black-cotton soils a large plough drawn by six or eight bullocks is used to reclaim land overgrown with weeds. In the Ceded Districts the ryots make use of a large scraper called goontaca which performs the services of grubber and harrow; a drill made of three or five bamboo tubes inserted at the top in a hopper into which the seed is poured and at the bottom into miniature ploughs which form seed-furrows into which the seed falls down the tubes; and a small bullock-hoe for cultivating between the rows of growing crops sown with the drill.

The water lifts in use have already been described, and ordinarily there are no other implements in use. No machinery is used. In the last few years a certain number of ploughs of improved patterns have been purchased by ryots, assisted by the Agricultural Department; large ploughs chiefly in the Bellary district, and small ploughs in some others.

388. THE DIFFERENT KINDS OF CROPS AND CULTIVATION.—The list at foot shows the principal crops produced in this Presidency.[1] The next statement [2] shows the proportion which the main divisions of these crops bear to one another. Rice (Oryza sativa) is the cereal most commonly grown. Rice grown in Bengal or Burmah does not suit the native inhabitants of Madras, being apt to produce indigestion and diarrhœa. The amount of nitrogenous matter in rice is small, varying from 3 to 7 per cent. Hence vegetarians using it eat along with it some pulse; and many of the lower classes, who have no caste scruples, also eat fish or meat. The unhusked grain is known as paddy, and the husking is exclusively done by means of a mortar and pestle, and chiefly by women. There are considerable exports of rice and paddy, chiefly to Ceylon, Arabia, Persia, Bombay, &c. In 1881-82 these shipments amounted to 2,040,647 cwts., valued at Rupees 61,62,950. Raggy (Eleusine coracana) is a dry-crop grain, and very largely cultivated in the Carnatic. Its chemical composition requires fresh investigation. It is largely consumed by the poorer classes, and coolies performing outdoor work prefer it to every other sort of grain. Cholam or great millet (Holcus sorghum) is a dry-crop grain, and exclusively cultivated in the Teloogoo country. It is a light and nutritious food, and contains about 9 per cent. of nitrogenous matter. The straw is rich in saccharine matter, and forms excellent fodder for horses. Another species is cumboo (Holcus spicatus). The principal millets are tennay or Italian millet (Panicum Italicum), saumay (Panicum miliare), and varagoo (Panicum miliaceum). It may be stated generally regarding the South Indian pulses, that they abound in vegetable casein and contain a little albumen. They are also rich in salts of potash and lime, and contain phosphorus and magnesia,

[1] LIST OF CROPS.

Cereal Crops.

English or Trade Name.	Scientific Name.
Raggy	Eleusine corocana.
Paddy	Oryza sativa.
Varagoo	Panicum miliaceum.
Millet	Panicum miliare.
Cumboo	Penicillaria spicata.
Italian Millet	Panicum italicum.
Great Millet	Sorghum vulgare.
Wheat	Triticum vulgare.
Maize or Indian Corn ...	Zea Mays.

Pulse Crops.

English or Trade Name.	Scientific Name.
Doll or red-gram ...	Cajanus indicus.
Bengal-gram	Cicer arietinum.
Horse-gram	Dolichos uniflorus.
Black-gram	Phaseolus radiatus.
Green-gram	Phaseolus mungo.
Peas, garden pea	Pisum sativum.

Oil Seed Crops.

English or Trade Name.	Scientific Name.
Ground-nut	Arachis hypogæa.
Rape seed	Brassica napus.
Linseed	Linum usitatissimum.
Castor seed	Ricinus communis.
Gingelly seed	Sesamum indicum.

Fibre Crops.

English or Trade Name.	Scientific Name.
Hemp	Cannabis sativa.
Jute	Corchorus capsularis.
Sunn hemp	Crotalaria juncea.
Cotton	Gossypium indicum.
Flax	Linum usitatissimum.

Dye Crops.

English or Trade Name.	Scientific Name.
Safflower	Carthamus tinctorius.
Turmeric	Curcuma longa.
Indigo	Indigofera tinctoria.
Chayroot	Hedyotis umbellata.

Miscellaneous Crops.

English or Trade Name.	Scientific Name.
Sugar-cane	Saccharum officinarum.
Chillies	Capsicum annuum.
Coffee	Coffea arabica.
Tea	Thea assamica.
Cinchona	Cinchona (var.)
Potatoes	Solanum tuberosum.
Tobacco	Nicotiana tabacum.
Plantain	Musa paradisiaca.
Onions	Allium cepa.
Garlic	Allium sativa.
Fenugreek	Trigonella Fœnum Græcum.
Coriander	Coriandrum sativum.
Green ginger	Zingiber officinale.
Cummin seed	Cuminum cyminum.
Pepper	Piper nigrum.
Mustard seed	Sinapsis ramosa.

[2] PROPORTION BETWEEN EXTENT OF CROPS FOR 1882-83.

Cereal food-grains	72·93
Pulses	8·60
Oil seeds	4·68
Garden crops	2·78
Indigo	2·24
Cotton	6·41
Other crops	2·36
	100

together with sulphur in combination with the casein. To a rice-eating people they are well adapted to supply the food elements which are wanting in the cereal. Cicer arietinum is called Bengal gram and Dolichos biflorus is called Madras gram. Both are largely used for feeding horses. Before giving it to the horse, the Bengal gram is macerated in cold water till it becomes soft. The Madras gram on the other hand is boiled for a short time before being used. Dolichos lablab is chiefly used for feeding bullocks. All three are very nutritious. The pulse called Cajanus Indicus is largely used to supplement the rice diet of natives, being pleasant, digestible, and nutritious. It contains about 22·18 per cent. of nitrogenous matter. The other pulses eaten by the people of Southern India are Phaseolus mungo or green-gram, Phaseolus trilobus, and the Ervum lentil. The garden crops of Madras comprise tobacco, largely grown on the islands of the Godavery and Kistna, and in the districts of Coimbatore and Salem; sugar-cane, chiefly in Bellary, the Godavery, South Arcot, Trichinopoly, Coimbatore, and Ganjam; chillies, betel-leaf, and plantain—all very widely distributed. The principal fruit-trees are the cocoanut, areca-nut, date and palmyra palms, jack, tamarind, and mango. The cocoanut flourishes luxuriantly on the banks of the backwaters and lagoons in Malabar, while the areca-nut palm is found in the greatest perfection in the lower valleys of the Western Ghauts.

389. The statement at foot [3] giving the acreage under cotton in each district during a recent average year will show the cotton-producing powers of the different parts of the Presidency. During the last few years several experiments have been made with cotton of different varieties on the farm at Sydapett. The soils of the farm are very sandy, insoluble silica constituting nearly 90 per cent. of their entire weight, while the percentage of plant-food they contain naturally is extremely small. These soils are therefore much inferior to the "cotton" soils of Southern India, which are alluvial in their character and contain a moderately large percentage of clay and organic matter. It was only by the judicious use of manure that fair results were obtained in cotton culture at Sydapett. The following varieties of cotton were experimentally grown with the results noted:—(*Western*)—A 5-acre field sown with this variety of cotton and maize in alternate lines yielded 1,766 lb. of seed cotton equal to 353 lb. per acre, and this was in addition to a fair crop of grain and straw from the maize plants that grew in alternate lines with the cotton plants. (*Hinganghaut and Bunie*)—These varieties are grown largely in Bombay, where they are said to be highly appreciated. At Sydapett the results obtained with them differed but little from those yielded by ordinary "Western" seed. (*Yea Valley*)—This valuable species of cotton grows well at Sydapett and produces a lint that is long, white and silky, resembling very much the cotton lint imported into England from the Fiji Islands. But unfortunately the Yea Valley cotton plant died out for some years at Sydapett from the repeated attacks of a borer which confined its depredations to this species of cotton. Quite recently however a small number of plants have been successfully raised. (*New Orleans*)—This species of cotton has been grown with considerable success at the farm, a return per acre of from 100 to 180 lb. of clean lint in addition to a fair crop of maize having been frequently obtained. This species of cotton is probably peculiarly adapted for cultivation under an improved system of farming; indigenous varieties are very liable to run to stem and leaf under the influence of manure, while the returns from this species of cotton are always large when manure is liberally used. The plant seems however to have two or three objectionable characteristics; it bears at very uncertain intervals, and produces gatherings that vary greatly in amount, while the harvest

[3] AMOUNT OF COTTON IN THE DIFFERENT DISTRICTS FOR 1882-83.

Districts.	ACRES.	Districts.	ACRES.
Anantapore	106,652	Madras	...
Arcot, North	241	Madura	143,173
Arcot, South	5,931	Malabar	...
Bellary	212,867	Neilgherries	...
Canara, South	120	Nellore	14,240
Chingleput	3	Salem	20,277
Coimbatore	243,465	Tanjore	3,819
Cuddapah	103,188	Tinnevelly	342,939
Ganjam	4,028	Trichinopoly	35,625
Godavery	16,474	Vizagapatam	16,302
Kistna	200,369		
Kurnool	212,585	Total ...	1,682,298

is spread over several months, thus necessitating a considerable expenditure in gathering the crop and in keeping down the weeds, which from the open shade the cotton affords grow very freely amongst it; but these defects also, to a certain extent, characterize indigenous varieties of cotton. Crops sown in September do not begin to bear until the following March, and the plants must remain on the ground until the end of August or the beginning of September to admit of a fair return being obtained. As in the Cotton States of America the sowings are made in April and May, and the whole of the harvest is over before the end of December, it is probably desirable that a supply of fresh seed should be obtained from the Southern States, preference being given to the Mexican variety, from which the true New Orleans variety is said to have originated. It is said that the ordinary black-seed New Orleans cotton was introduced into America from India. It appears desirable that a cereal crop should always be sown with the cotton crop in alternate lines; in this way the food-producing area of the country is not lessened by a larger area of land under cotton, nor will the returns from the area under cotton be materially diminished if the cultivation is properly conducted. The cholam and maize plants grow upright and do not interfere with the early growth of the cotton plants, and before the cotton plants begin to throw out lateral branches, the maize or cholam will be ready for harvesting. The New Orleans plant was treated as a biennial, but the results were not satisfactory, the cotton of the second year being much less in quantity, while its fibre was harsh and short. (*Egyptian*)—This species of cotton has yielded very fair results at Sydapett, though it was cultivated there only on a very limited scale. Its cultivation was somewhat costly, as the plant throws out many lateral branches, thus preventing the use of cattle in weeding the land. The lint produced was soft and silky, and it separated readily from the seed. The experiments above described afford ground for thinking that with due care and a judicious use of manure the cultivation of foreign cotton of finer quality than the indigenous cotton of local origin can be successfully introduced into this country. It is desirable, however, that further experiments should be tried on a larger scale both on the Government Farm at Sydapett and on the district farms when established, and the matter engages attention.

390. The next statement is for indigo similar to that given above for cotton.[4]

391. The cultivation of wheat in this Presidency is very limited, and is chiefly confined to seven districts as shown below.[5] The quantity of wheat exported to foreign ports and British ports beyond the Presidency during 1875-76 was 8,764 cwt., value Rupees 36,292, and in 1883-84, 1,933 cwt., value Rupees 8,226.

392. The principal coffee tract of Southern India is along the Western Coast, and coffee estates extend in nearly an unbroken line along the summits and slopes of the Western Ghauts from the northern limits of Mysore down to Cape Comorin. The only portions of the area within the limits of the Madras Government are the Wynaud tract and the Neilgherry Hills, the rest being in Mysore, Coorg, and Travancore. Coffee was originally introduced into India by a pilgrim returned

[4] AMOUNT OF INDIGO IN DIFFERENT DISTRICTS FOR 1882-83.

Districts.	ACRES.	Districts.	ACRES.
Anantapore	6,834	Madura	403
Arcot, North	38,885	Malabar	...
Arcot, South	68,705	Neilgherries	...
Bellary	460	Nellore	51,679
Canara, South	...	Salem	1,561
Chingleput	17,579	Tanjore	967
Coimbatore	...	Tinnevelly	589
Cuddapah	87,772	Trichinopoly	2,466
Ganjam	...	Vizagapatam	11,590
Godavery	3,008		
Kistna	122,593	Total ...	518,468
Kurnool	103,377		
Madras	...		

[5] AMOUNT OF WHEAT IN DIFFERENT DISTRICTS FOR 1882-83.

Districts.	ACRES.	Districts.	ACRES.
Anantapore	1,339	Neilgherries	6,543
Bellary	3,643	All other districts	545
Coimbatore	2,913		
Cuddapah	1,529	Total ...	27,051
Kistna	4,786		
Kurnool	5,753		

from Mecca. Coffee plants were introduced as a curiosity into the Wynaud about fifty years ago by Major Bevan; the first regular plantation was opened out by Mr. Glasson in 1840 on a hill at Manantoddy, and was soon followed by others. Nearly all the land taken up at this period was what is known as grass or bamboo land, and in consequence most of the estates proved unprofitable. Of many of them not a trace except the ruins of bungalows remains at the present day. After the first attempts coffee cultivation was transferred to South Wynaud. For ten or fifteen years it made little progress. In 1855 and 1856 a number of new estates were opened out, some too hastily and consequently with little success. In 1862 the return showed 9,932 acres under cultivation. In 1865 there were 200 estates covering 14,613 acres. An official inquiry was made on the subject of Wynaud coffee in the year 1868, and according to the returns then made the acreage was 29,909·08, of which 21,479·54 acres were held by Europeans and 8,429·54 acres were held by natives. At the present moment there are in Malabar about 24,000 acres of matured plants, 2,900 acres of immature plants, and 26,000 acres of land taken up for planting, but not yet planted. The average yield per acre in the Wynaud is said to be about 156 lb., and the cost of cultivation about Rupees 250 per acre; which at present prices would not give a good return. The table at foot [6] showing the quantities of Wynaud coffee shipped on the Malabar Coast during a period of twelve years indicates nearly all the crops, as very little passes out by Mysore or Coimbatore. Coffee cultivation on the Neilgherries was reported on in 1872. A large area of land on the Neilgherries has proved to be admirably suited for the cultivation of the coffee shrub. Not less than 22,897 acres are now under coffee plantations, besides 12,231 acres taken up for planting. Twenty-five years ago the area under coffee did not much exceed 500 acres. This great increase is entirely the result of private enterprise, and has added much to the prosperity of the Neilgherries, while at the same time benefiting the districts immediately adjoining. In the establishment of these coffee estates a property has been created worth about five millions of rupees, on which the annual expenditure cannot be less than two millions of rupees. Of the total expenditure about one-third is for the payment of wages to coolies; and most of this is carried into the low country, either in payment for food grains consumed by plantation coolies, or as cash carried by the coolies themselves when they return to their homes. Estimating that the sum sent into the low country in this way represents annually Rupees 6,00,000, this will support about 14,000 families of labouring people. Moreover in carrying coffee to the coast, and sorting, packing, &c., a large amount of other labour is employed. Until a few years previous to 1850 the coffee plantations on the Neilgherries were found only on the eastern slopes, but they have now been extended to the southern, northern, and north-western slopes; there are also some extensive plantations in the Ouchterlony Valley and in the neighbourhood of Coonoor. Coffee cultivation is also carried on on the Shevaroy Hills in the Salem district, where nearly 6,000 acres are under the crop, and an area of 4,680 acres has been taken up for planting; on the Pulney and Shiroomullay Hills in Madura, where nearly 4,400 acres have been planted and a considerable area has been taken up for planting; and in the Tinnevelly and Coimbatore districts, in the former of which there are about 2,000 acres under coffee and in the latter about 800 acres. The total area under coffee in the Presidency is as follows: mature plants, acres 53,917; immature plants, acres 9,208; taken up for planting, but not yet planted, acres 45,232. The total approximate yield is 13,239,663 lb., or about 245 lb. per acre of mature plants. Statistics of coffee cultivation are given in Vol. II, App. LX. Madras Act VIII of 1878 was passed to check petty thefts of coffee on the part of coolies employed on the plantations. The Act makes it penal to carry coffee on the roads without a duly attested pass, with other penal clauses. Under Section 2 of the Act the following have the force

[6] WYNAUD COFFEE SHIPPED ON WEST COAST.

Years.	CWTS.	Years.	CWTS.
1856-57	32,658	1862-63	43,907
1857-58	16,204	1863-64	91,947
1858-59	36,934	1864-65	110,548
1859-60	49,680	1865-66	125,891
1860-61	48,742	1866-67	66,552
1861-62	91,080	1867-68	128,011

of law:—(1) Section 2, extension to Neilgherry district and the Wynaud in Malabar, Judicial Notification, Fort St. George Gazette, dated 22nd October 1878, (2) Section 2, extension to Upper and Lower Pulneys and Shiroomullays in Madura district, Judicial Notification, Fort St. George Gazette, dated 28th January 1879, (3) extension to certain talooks, Malabar district, Fort St. George Gazette, dated 11th October 1881.

393. Tea cultivation has not the same interest in Southern India as coffee cultivation, and there are few plantations except on the Neilgherries. The tea plant was introduced on these hills nearly 40 years ago, but it is only during the last fifteen years that any real progress has been made in the cultivation. The experiments made between 1835 and 1840 were useful in proving that the tea plant would thrive on the hills, but little else resulted from them, though the opinions frequently expressed by Mr. John Sullivan and Monsieur Perrottet, and founded on these experiments that the greater part of the district was well suited for tea culture, have now been proved to be accurate. It is difficult to account for the little interest that was taken in tea cultivation prevous to 1865, for there was evidence that the plant would succeed well. At the present time the area under tea is as follows:—Mature plants, 3,322 acres; immature plants, 1,450 acres; taken up for planting, but not yet planted, 6,992 acres. The oldest estates are planted with tea of the China variety; those that have recently been opened, on situations not too exposed, are generally planted with the Assam variety, or with plants produced from a cross between the China and Assam varieties. The China variety is the most hardy and best adopted for high and exposed positions, but grows slowly, and produces very little leaf. The Assam variety is suited only for sheltered situations on rich fertile soil; when so circumstanced it grows rapidly, and is a large producer of leaf. The hybrid is the most generally useful, combining the leaf-producing quality of the Assam with the hardihood of the China variety. Most of the tea estates on the Neilgherries are on land which was formerly under grass; such land especially, if heavily covered by ferns, gives good results, but sholah land is preferred when it can be obtained equally well situated, as on such land the shrub grows with much greater rapidity, and gives earlier and heavier flushes of leaf. The plantations are generally small, ranging from 50 to 80 acres in extent, and besides these there are numerous gardens varying from plots of a single acre up to 15 or 20 acres. The bulk of the plantations appear to have been started as experimental plots, and gradually increased until they have reached their present area. They are generally not well arranged, and are ill-provided with buildings; many are altogether without buildings, being worked in connection with some other estate. The approximate yield for the year 1883 was 512,340 lb. or 151 lb. per acre of mature plants. The cost of cultivation varies from Rupees 40 to Rupees 175 per acre. The cost of manufacture is about 2 annas per pound. Statistics of tea cultivation are given in Vol. II, App. LX.

394. Tobacco is grown more or less throughout the Presidency, with the exception of Malabar and the Hill Ranges; but the chief localities of production are the alluvial lands of the Godavery district, where is grown the well known "Lunka" tobacco (so named from the lunkas or river islands on which it is cultivated), and parts of the Coimbatore and Madura districts, from which the Trichinopoly cheroot manufacturers draw their supplies of raw material. The plant is grown on almost every description of soil, from black loam to sand, and from irrigated land to high arid sites. Alluvial lands are preferred; then high ground, and such places as deserted village sites, and backyards of houses, the latter on account of the salts impregnating the soil, and also probably for convenience of position as regards manuring and watching and curing the produce. Of the more esteemed tobaccos used for European consumption, the best of the Godavery produce is grown on these alluvial lands which receive rich deposits of silt in the river floods and are out of the influence of the sea-freshes; while the Dindigul tobacco is produced on a carefully cultivated red loam to which an alluvial character has been artificially imparted. Some of the highest priced tobacco is grown on rich dry land under irrigation, but this, while suited for chewing, is too coarse in texture of leaf and too pungent in flavour for smoking. In some parts irrigation is practised and in others it is dispensed with; only a small quantity of water is supplied to the plant, and as a rule not by gravitation, but by mecha-

nical appliances, and preferably from wells of brackish water containing potassic salts. Excessive damp is prejudicial, and the seed beds and soil generally are superficially drained or stand high. The crop while young is gently watered by hand, and heavy rains detract from the quality of the tobacco, the tobacco grown on ordinary irrigable lands being generally inferior. The manures used are the droppings of sheep and goats penned on the land previously to cultivation, cattle-dung and urine, ashes and sweepings. In Nellore salt-earth is used. The manures are very plentifully applied to all soils except alluvial lands. The seed is invariably sown in seed-beds. The seasons of cultivation vary according to local climatic considerations. As a rule sowing commences after the local rains from July to October, though tobacco is sometimes grown as a second crop commencing in January. The site of cultivation is thoroughly ploughed and manured, the seed germinates in some eight days after sowing, and the seedlings are transplanted in the course of some six weeks on attaining a height of five or six inches, into holes a foot to a yard apart, sometimes in ridges, sometimes on the flat surface of the field. In some localities the seed-beds and young plants are protected from the extreme heat of the sun by means of mats, &c., and all leaves except ten or twelve are nipped off to strengthen those left; the flowers are also promptly nipped off with the exception of those purposely left for seed. The leaves begin to ripen in the course of some two months from transplantation, and as soon as one or two turn colour, the whole crop is collected. This is effected generally by cutting the stem with a knife, though in Ganjam and the alluvial lands of Vizagapatam the leaves are nipped off separately, and in part of Tanjore some leaves are first plucked in January and the stem and remaining leaves cut down in May or June. As a rule no second crop is gathered, and where the after sprouts are collected at all they are of very inferior quality. The process of gradually drying and fermenting is effected by modes slightly differing in detail. In Nellore, for instance, the cut leaves are hung in the sun for two days, put in heaps, turned every two days, and ranged in layers for twenty days, during which time they are frequently turned. They are then tied in bundles, dipped in water, sweetened with date jaggery, and are then ready for sale. In other parts, as in the Salem district, the plants are left a day or two in the field, then exposed to the sun and dew alternately for a week, then wrapped in straw and buried in the ground for a week, after which the leaves are stripped from the stems, made into bundles, placed in straw, and put under heavy weights, with their ends exposed for six weeks, the piles in which they are laid being opened and turned every other day. In other localities the leaves, after drying in the fields for a day or two, are hung over poles or ropes, preferably in the shade, in regular drying sheds or in the cultivators' houses, and subsequently stacked in heaps, which are opened out and pressed together again at stated intervals until the requisite curing is effected. Occasionally the leaves are sprinkled with jaggery water or an infusion of the Cassia auriculata while drying, and in Coimbatore the festoons of leaves after being strung are hung up on the milk-hedge (Euphorbia tirucalli) to acquire thence a flavour. State interference has been suggested in the case of this industry, but the Government have decided otherwise. Such interference has not been found necessary with indigo or coffee, and it was relinquished in the case of tea when that industry had made much less progress than tobacco has at the present time. The tobacco grown in this Presidency is at present inferior; but it seems clear that this is mainly due to the fact that there is a great demand for the coarse article, and that it is found to pay better to grow a large quantity of inferior leaf than to grow a smaller quantity of superior leaf. European capital would, however, doubtless improve the curing processes. The statistics of the tobacco industry lately obtained are too voluminous to be here inserted.

395. Lands in relation to Government.—The land in every Government village, as plotted out by the old original Pymash or Survey, or by the operations of the recent Revenue Survey and Settlement, falls into two main divisions, the uncultivable portion and the cultivable. The former goes by the general name of poramboke, and consists of various classes of land which from one cause or another are uncultivable or not likely to be cultivated, such as hills, rocks, jungles, and other lands not naturally cultivable; and of lands reserved for public purposes, viz., village sites, roads, beds of tanks, channels, cattle stands, burial grounds, &c.

As has already been explained in Chapter II no revenue is realized from poramboke lands, except a few miscellaneous items; it is not classified or assessed by the Revenue Settlement Department, and it is only surveyed in detail by the Survey Department when it consists of small blocks interspersed in cultivable lands. In the case of all portions of a village area which are considered to be in any way likely to be cultivated, whether on the irrigated or unirrigated system, the land is surveyed and marked off into distinct numbers or fields by the Survey Department, each field is examined and classified by the Revenue Settlement Department, and the amount of Government due or assessment chargeable thereon is fixed and placed on record. Any one taking up this land knows in advance that he will have to pay so much and no more in the form of Government assessment upon it; this land is consequently called the assessed land, or sometimes the ayacut or cultivable area of the village. Assessed land will, of course, include Inam lands, though the terms made with the Inamdar are for the moment special, and full assessment is not levied. It is not often that the whole of the assessed land in the village has already been taken up by cultivators. In each village there may be said therefore to be a portion of assessed land which is offered, but has not yet been taken up, and which forms the margin of cultivation, being always of poorer soil than the rest of the ayacut; this is otherwise called assessed waste. Villages have communal rights of grazing over assessed waste. Deducting this portion, the remainder of the ayacut consists of lands in the occupation of cultivators, and for the most part actually cultivated by them; this is called the cultivated area. In some cases the lands will from one cause or another be left temporarily waste by the occupiers, who will not nevertheless resign them. These occasional waste portions are ascertainable from the cultivation accounts; they can therefore be deducted and the remainder will represent the area actually under crops. The figures at foot[7] show to a certain extent the proportion of acreage belonging at a recent date to each of these four main classes of lands for an area of, say, 72,858,240 acres. The whole area of the Presidency, excluding native states and the town of Madras, is 89,135,360 acres, but the balance consists of lands for which particulars of cultivable or uncultivable lands are not known, lands lying outside villages, forest lands, &c. The four classes of lands are of course locally interspersed and the division is merely a paper division.

396. AGRICULTURAL CONDITION OF RYOTS AND LABOURERS.—The total agricultural population of the Presidency, excluding native states, is 10,714,139 or 35 per cent. of the total population according to the census of 1881. According to the revenue returns the number of persons whose saleable interests in land were registered in 1880-81 was 4,217,829. That is to say one out of every seven persons (of both sexes and all ages) in the total population of the Presidency has a proprietary right in some portion of the soil. Every section of the community, from the Brahmin to the Pariah, and Hindoo or Mahomedan, is represented in the list of cultivators. The desire for holding land is as strong as in any other part of the world. The direct taxes to which an agriculturalist in this Presidency is now liable are very numerous, but, though the multiplicity of the present taxation is no doubt an unwelcome substitute for the simplicity of the old taxation, all the present taxes and imposts put together amount to no more than the old land assessment. The rise in prices of late years has improved the position of the agriculturalist, and it may be hoped that with increasing resources more capital may be invested in the development of the soil. The most needy cultivators are those who hold dry lands only.

397. Upwards of four millions of the population are returned by the census as "labourers," employed in connection with the cultivation of the land. These represent for the most part the classes of the community who were formerly prædial slaves. The principal caste engaged in inferior agricultural labour is that of the

[7] ACREAGE UNDER FOUR CLASSES.

	ACRES.
Poramboke or uncultivable ...	24,235,520
Assessed waste not occupied ... } Assessed land occupied but not cultivated }	22,033,280
Lands under crops ...	26,589,440
Total ...	72,858,240

Vanniar. Throughout the greater part of the Presidency the agricultural labourer receives his wages in the form of farm produce; and it is only near large towns that money wages are paid. The rate of hire varies from one to two Madras measures of grain or 3 to 7 lb. per day, the higher rate being that usually given for occasional labour and the lower rate that for long engagements. The permanent labourer often enjoys the privilege of cultivating vegetables, chillies, and a few oil-seeds or nuts on his own account; sometimes also a percentage on the yield of the harvest. He frequently receives money advances from his master, and occasional presents of cloth, or a rupee now and then on festival occasions. The two classes of labourers differ very much in their circumstances. The permanent hands have little liberty, the very indulgences just mentioned constituting a yoke of service, for they can seldom repay money advanced to them. The casual labourer, on the other hand, finds living precarious; he meets with regular employment only at the busy seasons of the year, and during the remainder of the year has to depend upon such work as he can secure on the roads and other public works, or upon the small earnings to be made by selling fuel, grass, &c., in the large villages and towns. It is usual for the wife and other members of the labourer's family to contribute their earnings. The statement at foot [8] shows the average rate of wages of agricultural labourers obtaining at the end of the year 1883. Wages of artizans in the country have been added for illustration. The wages of agricultural labour have increased during the last quarter of a century, though not in proportion to prices. Where wages are paid in grain it is evidently difficult to secure progressive rates.

398. The table at foot [9] gives a comparison of the proportions engaged in agriculture with the total working population in this Presidency and in other parts of India. The figures are inclusive of native states in this Presidency and embrace persons engaged about animals.

399. LIVE-STOCK.—The agricultural live-stock of this Presidency consists of cattle, buffaloes, ponies, sheep, and goats: horses are almost entirely unrepresented. Cattle are kept for draught, for the dairy, for breeding, and for manure purposes; they are hardly ever fed or fattened for slaughter as in other countries, the meat market being supplied chiefly by the slaughter of wornout draught cattle, old or barren cows, &c. There are three well distinguished breeds of cattle. The

[8] AVERAGE RATE OF WAGES IN THE AGRICULTURAL DISTRICTS.

Districts.	Average wages per month. Able-bodied agricultural labourer.	Average wages per month. Common mason, carpenter or blacksmith.	Districts.	Average wages per month. Able-bodied agricultural labourer.	Average wages per month. Common mason, carpenter or blacksmith.
	RS. A. P.	RS. A. P.		RS. A. P.	RS. A. P.
Anantapore	4 0 4	14 0 0	Kurnool	3 0 0	15 0 0
Arcot, North...	5 0 0	15 0 0	Madras	5 0 0	13 9 6
Arcot, South...	5 10 0	13 2 0	Madura	4 0 0	20 0 0
Bellary	4 2 11	14 7 8	Malabar	9 6 0	16 14 0
Canara, South	7 8 0	21 4 0	Nellore	5 0 0	13 12 0
Chingleput	4 0 0	13 5 4	Neilgherries	8 0 0	30 0 0
Coimbatore	7 8 0	18 12 0	Salem	2 0 0	14 0 0
Cuddapah	7 8 0	15 0 0	Tanjore	1 8 0	11 10 0
Ganjam	3 12 0	12 0 0	Tinnevelly	6 4 0	14 6 0
Godavery	4 0 0	15 0 0	Trichinopoly	4 0 0	11 2 4
Kistna	6 0 0	15 0 0	Vizagapatam	3 8 0	11 0 0

[9] NUMBER OF AGRICULTURISTS IN DIFFERENT PROVINCES.

Province.	Percentag eof agricultural population to the total working population.	Province.	Percentage of agricultural population to the total working population.
Assam	89·04	Madras	65·21
Berar	74·80	British Burmah	63·02
Central Provinces	68·66	Coorg	68·98
North-West Provinces	66·88	Bengal	56·24
Bombay	66·65		

largest is a heavy framed, coarse, slow working bullock of white colour, bred chiefly in the Nellore district; the second is a smaller, lighter, more active, and better shaped animal, well adapted for draught purposes, and containing some of the blood of the celebrated Amrut Mahaul breed; the third is a small black and white and red breed, found throughout the whole of the southern portions of the Presidency. The average live weight of a South Indian bullock is about 350 lb. The best buffaloes are imported from the Bombay district of Dharwar. The sheep yield on the average about 25 lb. of mutton per head. The yield of wool, which is always largely mixed with hair, is usually not more than 1 lb. in the year per head. There are three well marked breeds of sheep. The first is a small-framed animal, with a covering of black or white hairy wool; the second is about the same size, red in colour, but destitute of wool, and covered only with short coarse hair; the third is a long legged goat-like animal, characterised by two tassels dependent from its neck, of larger size than the two first named, but producing coarse mutton and no wool. In 1875-76, the total number of cattle in the Presidency was returned at 8,624,849 head, and of sheep and goats at 8,941,813. In the same year, the export of hides and skins was valued at Rupees 2,04,09,352, and of horns at Rupees 2,28,309. Wool is not exported at all, the supply being locally consumed in the manufacture of cumblies or coarse blankets. For 1882-83 the number of pigs was returned as 254,557.

400. FAIRS AND MARKETS.—Fairs and markets are held periodically throughout the Presidency, the latter generally weekly or bi-weekly, and the former on the occasion of different festivals. At the fairs, in addition to the usual sale of agricultural produce, considerable numbers of farm-stock are brought together, especially in the breeding districts. The markets are on a very much smaller scale, and grain and petty articles of domestic use constitute the chief articles of trade. The produce brought for sale to a market is in most instances of no greater bulk than a cooly-load; and live-stock is seldom offered. The accommodation and general convenience of markets have been in recent years very largely increased and improved by the action of the various Local Fund Boards which have provided commodious sheds, wells, and drinking troughs.

401. FOOD PRICES.—The prices of food-grains are ascertained by local inquiry at the head-quarters of Tahsildars and Deputy Tahsildars and reported to the Board of Revenue once a month. The number of local measures of capacity per rupee is given in these reports. The measures are converted in the Board's office into seers' weight of 80 tolahs, and a general statement is then published in the Fort St. George Gazette. Once a fortnight a statement is sent to the Government of India for publication in the Gazette of India showing the prices prevailing at the head-quarters of each collectorate. Formerly in this statement retail prices alone were quoted. Arrangements however have now been made for quoting wholesale prices also. These will be the prices at which in great trading markets large transactions are effected between the holders of considerable stocks of grain, &c., and traders purchasing from them; but they will not necessarily represent the prices at which the agricultural community dispose of their produce. The grain markets are now much steadier than they were some years back. The years 1874-75 and 1875-76 may be taken to have been average years; the average retail prices of the principal articles of food for the whole Presidency in those years is shown below. [10]

[10] FOOD PRICES IN TWO RECENT AVERAGE YEARS.

Items.	1874-75.	1875-76.
Price of rice, 2nd sort, seers of 80 tolahs per rupee	15·2	16·0
Do. paddy, do. do.	27·2	28·6
Do. cholam, do. do.	25·7	26·6
Do. cumboo, do. do.	26·0	26·4
Do. raggy, do. do.	27·9	27·9
Do. varagoo, do. do.	37·0	39·6
Do. wheat, do. do.	10·7	11·4
Do. salt, do. do.	15·7	15·8
Do. cotton, per candy	111	104

402. DIRECT GOVERNMENT OPERATIONS.—An Agricultural Department was organized in this Presidency during the latter part of 1882 simultaneously with the revival of the office of the Director of Revenue Settlement, and was placed in charge of that officer. The Director is subject to the general control of the Board of Revenue. The work of the department is theoretically classified under the following heads: — (1) Organization and maintenance of village records; (2) Analysis of districts with reference to security from famine; (3) System of collection of revenue and rental in precarious tracts; (4) Measures of protection including Fodder reserves and arboriculture, Extension of communications, and Irrigation; (5) Agricultural experiments including farms; (6) Cattle-breeding and veterinary establishments; (7) Agriculture and fiscal statistics; and (8) Trade and trade statistics. Some of these matters however are at present administered by other departments. For instance fodder reserves and arboriculture are administered by the Forest Department and Local Fund Boards, communications by the Local Fund Boards and the Public Works Department, irrigation by the Revenue and Public Works Departments, fiscal statistics and trade with trade statistics by the Board of Revenue. So far as Government villages are concerned there already exists in this Presidency a highly organized system of agricultural record which having its foundations in the village and the field is fairly complete. A defect however is that it does not record the quantity and value of each year's produce. This is a matter which has been of late frequently discussed, and some practical measures are to be adopted. The analysis of districts mentioned above is understood to mean the compilation of standing information regarding the agricultural conditions of each district in the Presidency. A beginning has been made with Kurnool which suffered more severely than other districts during the last famine. The other districts will be taken up in the order of their liability to famine. Questions relating to the Sydapett Government farm,[11] the only one of its class, are at present in a state of transition, and it is not necessary to detail them. The present superintendent is also Agricultural Reporter to Government. The establishment at the farm now consists of a European superintendent and a native deputy with a small office establishment. Farms managed by native committees have recently been formed in the Madura and North Arcot districts, the object aimed at in both cases being the improvement of agriculture and agricultural stock. Neither farm however has an official character. Stock, chiefly bulls and rams, are distributed from the Sydapett farm to the districts for breeding purposes, but the operations hitherto have not been on any extensive scale. When the Government cattle farm at Hoonsoor in Mysore was about to be broken up three small herds were formed and placed one at Pennagaram in the Salem uplands, another at Kodaykarnal on the Pulney Hills, and a third at Devicoolam in Travancore. The herd at Pennagaram had not thriven, and after inspection by a Veterinary Surgeon has been sold and dispersed. The other two herds are doing well. The large losses of cattle from the occurrence of preventible diseases having attracted the attention of Government the services of a competent veterinarian have been secured to fill the post of Inspector of Cattle Diseases. Under this officer a number of men have been trained and posted to various districts in the Presidency as local Cattle-Disease Inspectors and in a short time every district will have at least one such officer attached to its

[11] SKETCH HISTORY OF SYDAPETT FARMS.—The idea of establishing Government farms in this Presidency originated in 1864, and a small farm was established in 1865 at Sydapett under the management of a committee. The success which attended the experiment induced the Government to take it under their direct management, and to extend its operations; hence the present Sydapett farms. These institutions have been concerned with too many tentative measures to be capable of showing a commercial success, but many important agricultural experiments have been made, and some have produced encouraging results, in indicating the general direction in which improvements can be effected in the agricultural practice of this Presidency. Attention has been given to subsoil drainage, improved tillage, the restoration of exhausted soils, economy, and the proper utilization of irrigation water; the fertilization of arable soils by the use of lime, saltpetre, oil-cake, poudrette and other manures available in Southern India, but now unused by the ryot; the introduction of new crops, suited to the climate of India and adapted for cultivation under an improving agricultural practice, such as maize, Sorghum saccharatum, Carolina paddy, Guinea grass and other grasses, New Orleans cotton and other superior varieties of cotton, tobacco of sorts, &c.; the production of live fences, in view to affording protection, shelter, and fuel; the introduction of water-lifts, barn machines, carts, ploughs, cultivators, cattle-hoes, reaping knives, &c., of improved construction, and the improvement of similar kinds of machines and implements now in use in this country; improvement of the livestock of the country by careful breeding and feeding, and by introducing and acclimatizing new breeds; with other matters. Up to the end of 1883-84 the Superintendent of the farm was also the Principal of the School of Agriculture which was opened in 1876 and is located in a building on the farm premises. As Superintendent he was controlled by the Revenue Department and as Principal by the Director of Public Instruction. This system of dual control was not found to work well, and from the 1st April 1884 the school and the farm have been disconnected the one from the other and are now managed by separate staffs.

staff. Large quantities of medicines are sent out every year in made up doses ready for administration in the treatment of the various diseases to which cattle are subject. The statistics of cattle disease receive careful attention. The deaths are recorded on the back of the village monthly mortuary returns. The veterinary establishment now consists of the Inspector, a Deputy Inspector, 14 local Cattle Disease Inspectors posted to districts, and a number of probationers under tuition at Sydapett. A veterinary hospital is maintained at Sydapett under the supervision of the Inspector: it is doing useful work and affords a valuable training school for the probationers and students of the Agricultural school, at which the Inspector is one of the lecturers. Under Native Governments and for a long time after the British took possession of the country, no expenditure appears to have been incurred on account of Cattle Shows. Public exhibitions however of cattle and useful productions of all kinds in agriculture, manufacture, minerals, and arts were held in several districts of the Presidency in 1855, 1856, 1857, and 1859, at an annual expense varying from Rupees 13,000 to Rupees 35,000. A general exhibition was held in 1874 and another in 1883 at Madras, and a scheme has recently been adopted for holding local exhibitions regularly at different places in the Presidency with other general ones at intervals at Madras.

403. GENERAL STATISTICS.—In Vol. II, App. LVIII is given a statement showing the total area of land in the Presidency, by districts; and divided into uncultivable land, land cultivable but not cultivated, and land actually cultivated. At foot [12] is a statement showing the area of holdings in ryotwarry tracts year by year from 1852-53.

FAMINE ADMINISTRATION.

404. NATURE OF THE SUBJECT.—The proximate cause of a famine in time of peace, is the failure of a succession of harvests resulting from insufficient or unseasonable rainfall. The loss of a single harvest over a restricted area, after a year of ordinary crops, does not produce famine; or even such a degree of scarcity as to call for State intervention. For the food outturn of an ordinary year is usually more than sufficient to meet the wants of the population until the next harvest. But when three or four harvests in succession fail over a large extent of country, it may be anticipated that there will be severe distress among the agricultural labouring classes not possessed of land. These have no stores of grain. They are wholly dependent for subsistence on the wages of their daily labour, and the demand for that diminishes when there is scarcity. Should the drought continue, the distress reaches a higher level in the scale of the population; the reserves of grain laid by for domestic consumption by the smaller landed proprietors being by this time exhausted. The grain dealers then aggravate the situation by keeping their stocks back from the market and prices rise rapidly, private charity becomes contracted, and the severity of famine is felt by all but the wealthy. Regarded from a medical point of view,[1] with the design of preventing actual loss of life, the question of determining when that is imminent admits of little definition; but it may be stated

[12] AREA OF RYOTWARRY HOLDINGS FROM 1852-53 ONWARDS.

Years.	Acres.	Years.	Acres.	Years.	Acres.
1852-53	12,078,535	1863-64	16,461,419	1874-75	19,959,014
1853-54	11,559,021	1864-65	16,778,662	1875-76	20,021,386
1854-55	10,936,440	1865-66	17,859,131	1876-77	19,956,856
1855-56	12,205,313	1866-67	18,514,593	1877-78	20,009,615
1856-57	12,964,668	1867-68	19,005,610	1878-79	19,904,508
1857-58	12,941,030	1868-69	19,212,865	1879-80	19,171,537
1858-59	13,629,430	1869-70	19,612,378	1880-81	18,932,679
1859-60	14,389,214	1870-71	19,987,687	1881-82	18,772,370
1860-61	14,669,960	1871-72	19,685,938	1882-83	19,095,867
1861-62	15,420,153	1872-73	19,691,413		
1862-63	16,196,929	1873-74	19,632,436		

[1] NOTE ON THE MEDICAL ASPECT OF FAMINE.—The physical signs of chronic starvation are anæmia and undue waste of tissue. Wasting soon follows upon insufficiency of food, and after an indefinite period the wasting advances from the fatty and cellular tissues to the muscles and other structures. How far such anæmia and wasting may proceed before a point is reached from which recovery is hopeless it is not possible to determine. The change is so gradual that in time of famine the assimilative functions may be irreparably weakened before the necessity for interference by public or other help has been recognized. The chief need of the population is early support for the able-bodied poor so as to

that the seeds of decay are sown by this cause earlier than is generally supposed. As to gauging the proportion between agricultural scarcity and distress, it may be inferred from experience that in any particular tract a year which yields more than 50 per cent. of what is ordinarily regarded as a full crop will produce food enough for the population of that tract under the stimulus to economy caused by high prices; and that, taking into account the grain stores and the probable importation, there will be no such pressure as to require special measures of relief. When the crop is so reduced that the whole outturn of the year is diminished to 25 per cent. of a full crop, it may be assumed that famine will prevail. As regards the periodicity of droughts and consequent scarcities of food it has been ascertained by observation extending over 110 years that an extreme famine in any one Indian province or locality may be expected once in 50 years, and that drought followed by severe distress may be expected once in 11 or 12 years. The history of Madras famines [2]

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enable them to maintain their vigour. As to the degree of emaciation preceding death, it has been established that the body can only waste from averages of 115 lb., and 95 lb., for men and women, to 77·1 lb., and 61·4 lb. When two-fifths of the normal weight of the body has disappeared life cannot be preserved. Other morbid conditions observed in cases of chronic starvation are as follows. A sort of scurvy appears in the gums and jaws, sometimes accompanied by a thick white fur on the tongue and mucus membrane of the mouth. The skin is covered by a scaly epithelium, removable by scratching but not by washing. The ends of the hair also become red, auburn, yellow, or straw-coloured. The apathy and langour of the famine-stricken indicate lesions of the nervous system, and this has been proved by the loss of weight in the brain. The effects of famine on the reproductive system again are well marked. Children born in relief-camps are born half-starved. In the Madras relief-camps of 1876-78, with an average strength of more than 11,000 paupers, and a constant succession of new arrivals, for a period of ten months, during which more than 100,000 passed through the camps, there were only 39 births. Taking the whole Presidency the registered births were fewer by 25 per cent. in 1877 than the average of the two preceding years. The ordinary diseases of India, cholera, small-pox, and fevers, are aggravated either by the depraved condition of health and lowering of vitality from bodily wasting, or by the circumstances of the food-dearth bringing the people under peculiar insanitary conditions. Of the special diseases of famine, the commonest is a form of diarrhœa, often complicated with dysentery. Dropsy also frequently appears; usually beginning at the feet and ankles, and face and eyelids. Other common complaints are; intestinal worms, ulcers, itch, vermin and guinea-worm.

[2] SKETCH HISTORY OF FAMINES IN MADRAS PRESIDENCY.—(1) *Famines anterior to the British occupation.*—Regarding the famines that occurred before British occupation not enough is known to furnish even a correct list of the years of their occurrence. Some of them were due to war rather than to drought; and in all probability some have been altogether forgotten, the object of Indian historians being only to record the fortunes of a dynasty. Even regarding those famines which took place at the end of the last century in territories administered by British officers, the information is too scanty to enable the area or the degree of the calamity to be now defined. (2) *Famines at the end of the last century.*—In Madras 1781 and 1782 were years of severe scarcity, caused mainly by the devastation of the war with Hyder Ally, but partly also by drought. In 1791 a severe drought afflicted the northern districts of the same Presidency as well as Hyderabad and the southern districts of Bombay, and in 1792 the famine there was intense. It was on this occasion that relief-works were first opened by the Madras Government for the support of those affected by the famine. (3) *Famine of* 1802.—In 1802 there was a failure of rain, severe in the Bombay Presidency and in Hyderabad, partial in the northern districts of Madras; this was followed next year by famine in the former case and by scarcity in the latter. (4) *Famine of* 1806 *and question of Government interference.*—In 1806 there was a widespread failure of rain in this Presidency, especially in the Carnatic, and in the parts around Madras, though the northern or Deccan districts were less heavily visited; and during the winter of 1806 and the early part of 1807 the distress caused by this drought became very severe. This was the first occasion on which there is distinct evidence of a fact which, as shown by later and more accurate observation, has characterised all subsequent famines in India. Large crowds of emaciated people that is to say flocked into the town of Madras attracted thither by the existence of a charitable association, and in the expectation of obtaining gratuitous help without, any limit. There was much discussion as to the proper measures to be taken by the Government on the occasion of this famine, some advocating the opening of works to give employment to the people close to their homes, others advocating the importation of grain by Government into the interior; the former was done to a certain extent, but the mortality among the cattle prevented the latter course. The Government at first declared against any interference with private trade, but in the end they conceived it necessary to purchase, guaranteeing a minimum price to importers; when the famine came to an end in 1807, large stocks were left on hand under the guarantee and had to be disposed of at a loss. (5) *Famines of* 1812 *and* 1823.—The principle of non-interference with trade previously declared by Madras was followed by the Government of Bombay in 1812-13 when another drought occurred, entailing famine in Goozerat and the adjoining countries. In a subsequent scarcity of 1824-25, which, though not very acute, extended over nearly the whole of Bombay and the north part of the Madras Presidency, the same question arose again. In Madras the Government proclaimed their intention of not interfering directly with trade, but offered a bounty on grain imported from a distance to the distressed locality. On this occasion the drought visited Madras in 1823, Bombay in 1824, and the North-Western Provinces in 1825. (6) *The Goontoor Famine of* 1833.—The Madras Presidency was the seat of the next great famine, that of 1833. On this occasion the northern districts suffered most, and especially the Goontoor district, in which the mortality was so terrible that the famine was known as the Goontoor famine. The total population severely affected was about five millions, and the area about 38,000 square miles. On this occasion the Government were taken by surprise, and the severity of the calamity was not recognised till too late. Very little was done to relieve distress except by the distribution of gratuitous food in the towns to which the sufferers from starvation flocked. It was estimated that 200,000 persons died in Goontoor out of a population of 500,000, and it was many years before the falling off of the land revenue was effaced. The adjacent parts of Bombay (that is, the Southern Mahratta country), of Mysore and Hyderabad, also shared in the calamity, though to a less degree. The drought of 1832 in the South was followed by drought in Upper India in 1833, which produced scarcity but not famine in the North-Western Provinces. (7) *Famine of* 1854.—In 1854 a famine, severe, though limited in area, visited the northern part of the Madras Presidency; but its intensity was confined to the Bellary district, and the south part of Hyderabad, an area of about 30,000 square miles, with a population of about three millions. The rainfall of 1852 had been light, and that of 1853 was extremely deficient. The harvest was reckoned at only half an average crop. Relief was administered only by means of public works: but abundant employment was thus given; so much so that crowds of applicants flocked in from the Nizam's dominions, and for about nine months more than 50,000 people obtained relief on the works. The supervision was at first exercised by civil officers, and was very lax; but by degrees it was brought under the charge of an engineer, with special officers under him, and the discipline and outturn of work improved, while the wage, which had been fixed too high, was cut down to a minimum rate. The total expenditure on these works was about Rupees 12,28,000. When the famine was brought to a close by a plentiful rainfall in the autumn of 1854 followed by a fair harvest, a valuation was made of the work done, and it was found to be worth about 38 per cent. of the money expended on it. The loss of land revenue and other income amounted to 42 lakhs of rupees, including the decrease in the receipts during the next two years, which was due chiefly to the loss of cattle and the consequent inability of the people to plough the land. It was estimated that in the worst part of Bellary four-fifths of the village cattle had died. Nothing definite is known as to the mortality among the inhabitants; but a census taken in 1856-57, in the imperfect form in use at the time, seemed to show that the usual rate of the growth of the population

confirms the latter statement. It seems probable that there is a connection between the cycle of famines, and the cycle of minimum solar activity as shown by a minimum number of sun-spots; this being also a cycle of 11 years. The matter is discussed at the conclusion of Vol. II, App. II. The phenomena of magnetic declination, auroras, cyclones in the Indian Ocean, hurricanes in the West Indies, and marine casualties reported, are said equally to follow the law of sun-spots, and to be corroborative of this theory of periodical drought. As regards the area of famine, that in this Presidency is for the most part confined to the districts in the central plateau. These districts, along with the Native State of Mysore, which occupies the southern end of the tableland, are exposed to the same danger of famine as the upland districts of Bombay; and their tank system, though largely developed, fails to protect the crops in seasons of extreme drought. The eastern and southern districts of this Presidency are protected by the artificial irrigation provided from the Godavery, Kistna, Cauvery, and smaller rivers, besides a multitude of tanks; and they have not been so frequently or severely ravaged by famine as the country on the inland plateau. The west coast is wholly protected by the abundant south-west monsoon. The subject of area of famine is however inseparably connected

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had received a serious check. (8) *Famine of* 1865-66.—The drought of 1865 was felt along the whole eastern coast of India from Madras upwards; and it extended to some distance inland, visiting Mysore, the districts of Madras above the Eastern Ghauts, Hyderabad, the hill country in the south-west of Bengal, and Behar; but it was most intense along the coast in the districts of Ganjam and Orissa. The area severely affected in Madras was about 43,000 square miles, with a population of about six millions. The Government had now become familiar with the warnings of famine and the steps necessary to meet it, and were prepared to initiate the usual machinery of relief-works, relief-houses, and public subscriptions. But the distress was not very pronounced, and in all probability would have passed off with little notice had not the rainfall of the following year also, 1866, been so late as to cause general alarm, and so insufficient as to produce a very inferior crop. It was not till June or July that the need of relief became pressing, and works were then opened in considerable numbers, under civil officers. Prices rose to an extraordinary height, 10 and 12 lb. per rupee for rice being not uncommon, while coarse millets sold at 12 to 15 lb. per rupee; and the sufferings of the people in Ganjam and Bellary were severe. Still, in spite of unusually high wages and the absence of task-work, the numbers employed on relief-works never were large and averaged only 12,000 daily for 15 months. Gratuitous relief was given to 31,000 persons daily for 16 months, mainly in the form of cooked food and in relief-houses, managed to a large extent on the system introduced by Sir John Strachey and made known by Colonel Baird Smith's report. In Ganjam alone was there evinced any extreme dislike to this form of relief, and there only by the ryots and more respectable classes, to whom uncooked food was accordingly given. The prolongation of distress, due to the second failure of rain, caused the relief operations to last on till the next monsoon set in, in June 1867; the entire expenditure amounted to about 12 lakhs of rupees, of which two were contributed by the public and the rest fell on the Government. Not much is known as to the mortality; but the prolonged duration of high prices must have told severely on the population; and there are indications that the number of deaths in the last six months of 1866 increased by about 450,000, or was double the usual average. (9) *The recent famine of* 1876-78.—The great famine in Southern India, of 1876—78, was in respect of the area and population affected and the duration and intensity of the distress, the most important calamity of its kind experienced in British India since the beginning of the century. The failure of the summer rains of 1876 extended over about half of the Madras Presidency, the distress being most intense in the same tract or that lying above the Eastern Ghauts, which suffered in 1833 and in 1854. The scarcity was felt with great severity over the whole of Mysore (except the hilly tracts that lie along the Western Ghauts), the southern half of the Hyderabad State, and all the Deccan districts of the Bombay Presidency. The area thus affected was about 200,000 square miles containing a population of 36 millions. Like most widespread famines, this famine was caused by drought, but not by the drought of a single season or of a single year. The harvests of 1875 had been indifferent, especially in the Ceded Districts. In 1876, the south-west monsoon or summer rains, on which the northern districts are largely dependent, proved very deficient; and the north-east monsoon or autumn rains, on which the southern and eastern districts almost entirely rely for their cultivation, failed still more completely. Except in the deltas of the Godavery and Kistna, the total rainfall of that year scarcely anywhere exceeded 10 inches, as compared with an average of about 30. When the monsoon failed in October 1876, it was recognised that a twelve-month's famine was at hand, and inevitable. In 1877, the south-west monsoon failed a second time, and the distress was gradually intensified throughout that year. Relief was not obtained until November 1877, when the north-east monsoon at last gave a sufficient rain-supply, and the crops of the coming season were assured. The area in Madras seriously affected by famine was estimated at 74,000 square miles, with a population of 16,000,000 persons. No districts entirely escaped between the Kistna river and Cape Comorin; but the distress was most severe in the tract immediately south of the Toongabudra, including the districts of Bellary, Kurnool, Cuddapah, and Nellore, and farther south in North Arcot and Salem. Mysore also suffered exceptionally. It was found after a while that no adequate stores of food remained in the country, and but for the efforts of Government, and the vast imports of food brought into the country by the European mercantile houses from Bengal, Burmah, and the East, a much greater proportion of the population would have perished than actually occurred. During the eighteen months ending January 1878, the total amount of grain imported into Madras by sea was nearly 700,000 tons. The difficulty remained however of bringing these stores of food to the people, and this was with much labour and some delay effected by means of the railways, especially the Madras Railway. The total amount of grain distributed in the interior by these lines between August 1876 and November 1877 was 724,339 tons, yielding a freight of Rupees 55,36,950. It will never be possible to obtain a complete record of the loss of life caused directly and indirectly by this great calamity, but probably nearly four millions of persons perished in that manner. In some large tracts of country half the population temporarily disappeared. In the famine area 21·8 per mille of population were entered in the recent census as having died under the general heading of 'other causes,' while in the non-famine area only 8·5 per mille were so entered. The following detailed statistics, though imperfect, will give a general conception of the character of the calamity, and the means adopted to alleviate it. In Bellary district, one-third of the inhabitants were in receipt of relief, and one-half of the land fell temporarily out of cultivation. In one week of September 1877, a grand total of 2,341,692 persons received Government relief, of whom 708,255 were employed on works, and the rest were relieved gratuitously. The mortality in Madras city during the year 1877 was at the rate of 116·7 per thousand. At one relief camp in Salem district, during May 1877, 746 persons died out of an average strength of 7,000. The expenditure in Madras Presidency on account of famine during the two years ending March 1878 is officially estimated at about 624½ lakhs, to which must be added loss of revenue, about 191 lakhs, the total expenditure thus being about 815½ lakhs. The amount subscribed by private charity, chiefly at the London Mansion House, for the whole famine area reached a total of £820,000, the greater portion of which reached Madras. This sum was distributed through the agency of local committees, principally in providing seed grain, plough cattle, and other permanent necessaries of living, and in supporting those who for various reasons lay beyond the reach of Government relief. The fund was managed by a central committee at Madras. Favorable rains in September 1877 led to a rapid decline in the number of persons dependent on State relief, and this diminution steadily continued during the next three months. In January 1878 however prices began again to rise, and towards the beginning of March fresh works had to be started in Bellary and North Arcot. Relief operations may be said to have been finally brought to a close in October 1878.

with the same question for the whole of India. The remarks in foot-note [3] and at Vol. II, App. LXXX will throw light on the subject. It has been suggested that the varieties of land tenure might affect the incidence of distress by famine. This question has been examined as regards the tenures enjoyed directly under Government, but with a negative result. As all holders under Government have a practically secure position, no differences can be traced in this respect. As regards holdings generally, it may be stated that the greater the fixity, the greater will be the safe-guards.

405. These are the ascertained facts about famine, and it follows that a certain amount of provision and preparation is possible. That preparation in India must fall almost wholly on the State, and it must take the form of an organization for the alleviation of famine when it occurs. Before the close of the great Madras Famine of 1876–78 a Famine Commission was appointed by the Secretary of State to examine the question for the whole of India. Their recommendations are contained in the foot-note below.[4] A committee sat in Madras in 1881, and framed

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[3] CONSIDERATION OF THE REMAINDER OF INDIA WITH REFERENCE TO ITS LIABILITY TO FAMINE—*Punjaub.*—The territories of the Punjaub occupy the north-western angle of the northern plain, and extend along the Himalaya west of the Jumna, up to the frontier of Afghanistaun, also stretching southward a little beyond the point where the five rivers which give the name to the province unite in the Indus. The tract lying along the foot of the Himalaya is well watered, but the rainfall everywhere decreases as the mountain range is more distant. In the southern districts between the Sutlej and the Jumna there is barely sufficient rain for agricultural purposes, and here the failure of the monsoon has frequently involved the country in droughts. The districts west of the Sutlej at a distance from the northern mountains are still more deficient in rain, and rely for their cultivation almost exclusively on artificial irrigation: they are from this cause to a great extent uncultivated, for though the soil is believed to be fertile if supplied with irrigation, and the many large rivers that traverse the country afford abundant water, it has till now been but partially utilized. Between the Punjaub and the sea lies Scinde, a country almost wholly without rain, and almost entirely dependent on artificial irrigation from the Indus for its agriculture and its power to support its scanty population. But here, as in the Southern Punjaub, the supply of river-water is not liable to such serious failure as to produce general loss of the crops, and famine from drought is hardly known. (2) *North-Western Provinces and Oudh.*—The North-Western Provinces and Oudh form the upper part of the great plain of the Ganges to the west of Bengal, and lie between the Himalaya mountains and the hilly border of the central plateau, the northern margin of which comprises parts of Bengal, the Central Provinces, and Rajpootana. The average rainfall increases, passing from west to east, and also as the Himalaya is approached. In the tract lying along the foot of the mountains much rice is grown, and it is subject to severe losses of its crops, and has at various times suffered considerably. The region between the Ganges and the Jumna is now almost completely protected from drought by its irrigation canals. But the districts south of the Jumna below Agra are poor in soil, their rainfall is precarious, and little has been done there for artificial irrigation; and this region has been severely afflicted whenever drought has visited the province. (3) *Bengal.*—Bengal, which occupies the deltas of the Ganges and Brahmapootra, is flanked on the east by the hilly regions which separate it from the valley of the Irawaddy, and on the west by another hilly tract which forms the eastern border of the central plateau already described. This province, which is chiefly a great alluvial plain producing rice, is alike the most populous and productive of any in British India. In the eastern half of it drought is unknown; in the western half and the southern portion, called Orissa, there have occasionally been severe famines, due not so much to absolute failure of the rains as to their premature cessation at a time when the rice-crop particularly needs water. Assam, lying along the valley of the Brahmapootra, is a tract which has never yet been visited by drought; it contains a vast area which will in the future afford an opening for a great extension of cultivation. Sylhet and Cachar, two of the more eastern districts of the delta, and somewhat similar in character to Assam, are for administrative purposes united with that province. (4) *Central India.*—Between the valley of the Nerbudda and the southern border of the Punjaub and the North-West Provinces lie the native states of Rajpootana and Central India, occupying a tract of high and hilly land, and extending at a lower level to the west of this hilly region as far as the confines of Scinde. This western region in its main characteristics is not greatly removed from desert. The eastern tract, which is a portion of the northern plateau, is not of any remarkable fertility, and except at the south-west angle, where the rainfall is comparatively certain, is much exposed to the risk of drought which attends the failure of the south-west monsoon. (5) *Central Provinces.*—The Central Provinces and Berar include the districts lying along the upper parts of the Tapty and Nerbudda rivers, along several of the northern affluents of the Godavery, and along the western feeders of the Mahanuddy. Berar lies between the Central Provinces and the north-eastern portion of the Bombay Deccan, and forms the northern part of the Nizam's territory, though administered by British officers. These districts, though everywhere more or less intersected by hills, include in many parts very fertile plains or valleys. The western districts of the Central Provinces lying along the valleys of the Nerbudda and Tapty enjoy a plentiful rainfall which has never been known to fail; and the only tracts which have ever suffered from drought are those to the north of the Nerbudda, which share the characteristics of the hilly region described in the preceding paragraph and the eastern districts, which are contiguous and in their nature somewhat akin to Orissa. (6) *Bombay.*—The Bombay Presidency, the north-west portion of which, Scinde, has been already described, includes the territory of the western coast from the limits of Madras to the frontier of Beloochistaun, and the portion of the upland plateau of the Deccan which borders on the Western Ghauts. The narrow strip of lowland country between the Western Ghauts and the sea is well watered, and where there is sufficient depth of soil is richly productive. The central Bombay districts on the Deccan plateau have a poor and shallow soil, and the portion beyond the influence of the heavy rainfall on the ghauts is exposed to severe drought, and has frequently suffered extreme distress. Candeish, which may be described as an extension of the Deccan at a lower level along the Tapty valley, has a richer soil. Goozerat is the still richer lowland region about the mouths of the Nerbudda and the other rivers which fall into the Gulf of Cambay. The native states of Cuttywar and Cutch have a poorer soil and a smaller rainfall than the British districts, and are therefore more liable to suffer severely from drought. (7) *Hyderabad.*—Hyderabad, or the territory of the Nizam, is divided into two distinct regions. On the west the country is of the same character as the Deccan districts of Bombay, and this tract especially at its southern edge, has frequently been visited by drought and famine. The eastern part is more hilly, and shares in the influences of the north-east monsoon. It contains numerous tanks and grows much rice, and no serious drought has been recorded there. (8) *Burmah.*—British Burmah lies on the east coast of the Bay of Bengal, its richest districts being formed by the deltaic plains at the mouths of the Irawaddy and Salween rivers. This province is by its peculiar conditions of climate believed to be quite removed from danger of drought and consequent famine, and is specially deserving of notice as supplying a source from which a large provision of food-grain may always be secured for India.

[4] RECOMMENDATIONS OF THE LATE INDIAN FAMINE COMMISSION.—(1) To lay down a definite system of procedure, to be embodied in a famine code, which the Local Governments will carry out, subject only to financial control on the part of the Government of India. At the same time to provide, by the aid of a special department of the Government, an improved

a Code of Famine Administration for this Presidency, the main provisions of which are for brevity's sake also shown in a foot-note.[5] The Code centres in the Collector the whole administration in time of famine, and arranges for the expansion of other departments so as to meet the demands made upon them by that officer. A leading feature in the arrangements is the preparation in advance of lists of relief-works to be executed when distress comes on. The committee were not averse to storage of grain by the State in special localities, but no definite rules on this head are inserted in the Code. Happily there is no present prospect of the occurrence of a famine, and the greater part of the arrangements of the Code are in abeyance.

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system of recording information on subjects connected with famines, and of collecting and dealing with the statistical returns relating to the weather, the agriculture, the health and the well-being of the people, and thus to secure the most prompt and accurate knowledge attainable of a probable failure of crops, and of the extent and consequences of any failure that actually takes place. Further, to concentrate the control of the various branches of the Administration concerned in famine relief, and to render their action more efficient. (2) To provide for the offer of employment at the cost of the State to persons capable of work and deprived of the means of earning their livelihood by reason of drought, such employment being offered in time to secure them against the danger of falling into an enfeebled condition through want, and being adapted to the capacity of the labourers. (3) Simultaneously to offer gratuitous relief, as far as possible, in their villages, or, if the case shall so require, in poor houses, to persons who in such times are left without the means of support, and are from any cause incapable of providing for themselves; attention being given to the great importance of avoiding anything that may tend to weaken the coherence of the village community, of working through the village officers or head-men, where such authorities exist, and of making use of any available local help for superintending the relief operations. (4) To organise a suitable system of village inspection and control, through which the condition of the country and the efficiency of the measures of relief may be ascertained, and defects brought to light and corrected, and the people encouraged to avail themselves of the measures offered. (5) To maintain a policy of non-interference with the ordinary operations of trade unless in some very exceptional condition of affairs when there may be evidence that without such interference the supply of food will not be maintained; but to keep a constant watch over the food-supply of the people in time of threatened or actual scarcity, and to remove any impediments in the way of the free movement of trade; measures being also taken in anticipation of the time of need to extend and improve to the utmost, and in all parts of the country, those means of communication on which the distribution of the food directly depends, and those means of irrigation by which its production may be profitably increased and secured. (6) To grant aid to the land-owning classes in two ways: First, to relax the demand for land revenue at a time of widespread loss of the harvest, suspending it freely in proportion to the degree of that loss, on the condition that a proportionate relief is given to tenants and others who hold subordinate rights in the land: Secondly, to give loans both to small landed proprietors who are in need of such assistance, and also to larger proprietors who may be trusted to apply the money usefully. (7) To lay down with precision the limits within which the principle of local responsibility for meeting expenditure on relief shall be applied to provincial governments; and to require the municipal authorities in the towns, and the local committees in the districts, to co-operate in carrying out relief measures for the local population.

[5] PRINCIPAL PROVISIONS OF THE MADRAS FAMINE CODE.—*General Funds to be utilized.*—The following are the arrangements between the Government of India and the Madras Government with reference to the liability of funds controlled by the respective Governments for famine charges arising within the Presidency. Provincial and Local funds must be exhausted to the extent indicated before application is made for a grant from Imperial. Provincial resources consist for this purpose of (*a*) current income during the period of distress; (*b*) accumulated savings of past years in excess of the ordinary "working balance;" and (*c*) the margin of provincialised income over expenditure in normal years available for public improvements. Upon these, provincial responsibility is enforced in proportion to their nature. The first must be entirely exhausted, that is to say every avoidable expense in every department must be retrenched, and the Public Works grants applied to famine works to the utmost possible extent. The second must be drawn upon up to two-thirds only of their total amount. The third must, in the first place, be made liable to whatever extent may be necessary, in addition to the ordinary Public Works grants, for the completion of works begun as relief works under the pressure of famine. In cases where no such need for completion remains after a famine, this third resource must be chargeable up to one-fourth at most, for payment of interest on Imperial loans (if any) which have been raised to meet the excess cost of the famine. Local resources which can partially be utilized for famine relief consist of (*a*) Local and Municipal funds; (*b*) the Canal and Ferry fund; and (*c*) the Pound fund. Local and Municipal funds cannot be legally applied to gratuitous relief, but are available for relief works. The Canal and Ferry fund can be applied to the construction and repair of the channels and ferries concerned, as also of such bridges, roads, and approaches leading thereto and being in the same district within which the funds are raised. The Pound fund can be devoted to the construction and repair of ponnds, and to other purposes of public utility. Should any additional grant of funds applied for from the Government of India be delayed and immediate further expenditure is essential for the preservation of life, the Government can make such further assignments of Imperial funds as may be necessary. (2) *Establishments.*—If the famine area is large enough the Government may appoint a Famine Commissioner. A Secretary in the Famine Department may also be appointed, with an Assistant Secretary, selected from the Public Works Department, and a suitable establishment. The Collector is the Agent of Government for carrying out measures of relief in each district, which will be the unit of relief administration. A special assistant to the Collector may be appointed. Such increases as the circumstances may require may also be made to the District Revenue staff, the offices of the Accountant-General and Examiner of Public Works Accounts, the Public Works establishments, the district Medical staff, and the Police and Jail Departments. (3) *The provision of relief works.*—Relief operations are divided into three branches: (1) Relief on works, (2) Gratuitous relief, and (3) other measures of relief. (1) Relief works are classified as (*a*) Professional Agency Works and (*b*) Civil Agency Works. (2) Gratuitous relief is distributed in villages or poor-houses to persons who are physically unfit for labour, or who will not work. (3) Other measures of relief include advances to weavers, assistance to gosha women and indigent members of respectable families for whom suitable employment cannot be found, loans to the landed classes, and suspension of land revenue. Professional Agency Works are composed of Major Works (i.e., each estimated to cost over Rupees 2,500) and repairs which find a place in the several Public Works budgets under all the heads of service excepting (Imperial) Military and Productive. These are works for execution in ordinary years irrespective of famine. These works will be under the immediate supervision of the Public Works Department and are intended to afford employment to (i) the ordinary labourers of the department, skilled labourers, and those who are accustomed to manual labour of the l ind demanded and who have not suffered from famine; and (ii) all able-bodied and healthy persons who are not used to this kind of work, but who are capable of rendering 75 per cent. of the task commonly performed by labourers in class I at the sort of work in question. Civil Agency works will ordinarily consist of (1) all Local Fund and Municipal works; (2) all Special Local Fund works falling under the Canal and Ferry Fund Act and the Cattle Trespass Act; and (3) Agricultural repairs usually executed by Civil Officers by grants-in-aid from the Public Works Department budgets, repairs of buildings carried out from assignments made in the Civil budget, and original minor works specially intended for famine relief, such as the digging of fields, and other agricultural works calculated to improve the outturn of the ensuing season. Civil Agency works are entirely under the control of the Civil Department. The Public Works staff may assist in carrying out these works if they are not required for Professional Agency works, or the former may be transferred to the latter class of works if they are of importance. Civil Agency works are primarily intended to afford light employment to persons who are considered physically unfit for labour on (*a*) works and for those whom it

406. The recuperative power of the country after famines is probably much on the increase; partly on account of the more efficient character of the relief now given on such occasions, partly on account of the extension of the means of communication and development of internal trade, and partly also on account of the fact that the people are themselves better prepared to meet them owing to the increase of thrift and resourcefulness and the accumulation of capital under a settled and civilised Government. It is demonstrable that the effects produced by the Madras Famine of 1876–78 on the general prosperity of the country have been less disastrous than those of former calamities, most of which were not to be

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may be deemed inexpedient to draft to work at a distance from their homes. The labourers on (*b*) works are divided into three classes. Classes I and II correspond with the similar classification of labourers on (*a*) works, and class III consists of persons who are not able to perform more than from 50 to 75 per cent. of the outturn usually rendered by labourers in class I. To meet the exigencies of famine a programme of (*a*) and (*b*) works must be prepared for each district. The Public Works Department should constantly maintain in their several budgets a number of (*a*) works for each district, the execution of which in ordinary seasons would occupy at least four years. Similarly for the different kinds of (*b*) works sanctioned projects should be prepared and maintained by Collectors in communication with the Executive Engineer in charge of the district and the Presidents of the Local Fund and Municipal Boards concerned. In all cases a budget covering the operations of four or more years in advance should be maintained. At the commencement of famine the Government may close any major (*a*) works which are outside the famine zone, and select such major (*b*) works (redistributing the establishment to meet the requirements) as shall appear to be the best adapted for affording the required relief, and further authorize the immediate commencement and redistribution of Imperial Works (other than Military or Capital Productive) in anticipation of the sanction of the Government of India. (4) *First forecast by Collectors.*—When severe scarcity is apprehended, a sure indication of its existence being a rise of 40 per cent. above the normal in the price of second sort rice and of 50 per cent. in that of dry grains, the Collector of the district should at once report to Government his anticipations. On the imminence of famine, he should submit a special report to Government, and recommend the opening of such relief operations as may be necessary, and apply for funds, specifying approximately what portion of the total grant applied for is required for works and what for gratuitous relief, &c. The nature of the relief to be given should vary according to the severity of the famine. If it only amounts to severe scarcity it will be sufficient to enlarge the ordinary works so as to afford employment to greater numbers than usual, but without any change of system. As a general rule all interference with private trade in the supply of food in time of scarcity is to be avoided, but in districts in which communications or the means of transport are defective such intervention may sometimes be necessary. In the event of well-ascertained slackness on the part of the local traders, Collectors should apply to Government for permission to give assistance in improving the transport and in encouraging and stimulating trade, by guaranteeing a price for grain laid down at the more distant and inaccessible localities, or by advancing money to merchants to lay out in trade, and also for sanction to import grain when local dealers refuse to sell, or combine to sell at prices unduly raised above the rates of neighbouring markets. Gratuitous relief is intended for destitute resident villagers who are physically incapable of, or unfit for, labour from age or infirmity, and who have no well-to-do friends or relatives on the spot to support them. On the approach of scarcity, Collectors should direct the preparation of registers showing for each village in their districts, the names, &c., of all persons entitled to gratuitous relief. Poor-houses are intended for the gratuitous distribution of cooked food and raiment when necessary. This form of relief is for destitute wanderers who have no homes and are unfit for work. A hospital is to be attached. (5) *Execution of works.*—The special duties of the Engineer officer in charge of (*a*) works are to see that the works are properly set out and measured up, and that they are fully up to specification; to provide tools for the labourers; to maintain discipline on the works; and to take measures to ensure prompt receipt by labourers of the wages due to them. The Superintending Engineer on receiving intimation that relief-works are to be commenced, should provide tools and treasure chests for (*a*) and (*b*) works. All arrangements for supply of food to labourers will devolve on the officers of the civil department. When a relief-work is ordered by the Collector the Executive Engineer should make the necessary arrangements for carrying it out. Shelter should also be provided for 20 per cent. of the number of labourers for whom the work is designed to give employment, but residence in camp is not compulsory in the case of labourers. The various classes of artisans must be classified according to their different capacity for manual labour. The non-working children of these labourers should be fed in kitchens specially provided for their accommodation. In relief-works piece-work is to be preferred, but task-work is allowable in the case of labourers unaccustomed to piece-work. The services of contractors may be usefully employed, but in the agreements with them the fullest power of inquiry and interference including the power of resuming the work should be reserved. A re-adjustment of the contractor's rates may be also made if necessary, as well as the wages of the different classes of labourers. Labourers on task-work should be paid daily or twice or thrice a week, those on piece-work being paid on the completion of the piece. All payments should be made in cash, but grain wages should be introduced when the local supply of grain fails. Fines may also be inflicted for short work on the task-work system. Periodical reports should, for each work in progress, show the ruling prices of grain and the state of the supply, the physical condition of the people employed on the work, of those seeking relief, and of the neighbouring population, stating the numbers who have been rejected from the works, the reasons for such rejection, together with the causes of any refusals to work and the action taken and other information which will enable the authorities to judge whether operations should be extended or continued. (6) *Medical and Sanitary.*—If the Civil Medical establishment is inadequate to meet these requirements then the Surgeon-General should apply to Government in the Military Department for such assistance, and failing a sufficiency of aid from this source, he should temporarily entertain pensioned apothecaries and hospital assistants. If local sources fail, a supply of medical officers must be obtained from other provinces. The Surgeon-General should also comply with requisitions for medicines, &c., for famine camps and hospitals. He should also issue instructions regarding the diet for various classes of patients, and report to Government the numbers treated and the mortality and causes of death. He should when necessary personally inspect the medical arrangements for famine relief, and at the end of the famine submit a general report on the operations of his department. The duties of the Sanitary Commissioner are to inspect poor-houses and camps on relief works and to report on the sanitary arrangements and the physical condition of the inmates. The duties of the District Civil Surgeons are to scrutinize returns of mortality, and to estimate the number of additional medical officers required. The administrative arrangements for medical relief will be entrusted to the District Surgeon, and he will be held responsible for provision for the sick in poor-houses and on relief works. He should report to the Civil and Public Works officials on all matters relating to the health of the labourers or the welfare of the sick. In all matters relating to the general administration of famine relief, he should act under the authority of the Collector, and on all professional and departmental points, he will be guided by the orders of the Surgeon-General. A Medical officer should be attached to every poor-house and large relief works, and one placed at the head-quarters of each famine division to assist the civil authorities in the selection of applicants for relief. The duties of Executive Medical officers on works are to inspect labourers frequently, to report cases of labourers physically unfitted for work, inspect the camp, provide hospital accommodation, attend to all cases of acute illness amongst the labourers, maintain discipline in hospital, superintend the issue of food to the patients, and to report on the condition of gangs of labourers and on the quality of food supplied. The duties of Executive Medical officers in poor-houses are the same as those for Medical officers on works. Provision for 50 per cent. of the total number of inmates to be received into a poor-house should be made in the hospital attached to it. The Medical officer will examine all applicants for admission and relegate them to suitable relief works or admit them into the poor-house or hospital according to the

compared to it in severity. In Madras the area occupied for cultivation in the year immediately after this famine exceeded by 50,000 acres that of 1874-75, and the land revenue was eight lakhs of rupees in excess of the average demand before the famine. There seems no reason why the recuperative power thus shown by the land-owning classes should not extend by degrees to all parts of the population.

HORTICULTURE.

407. Cinchona Plantations.—The chief active principles in cinchona bark are the two alkaloids, quinine and cinchonine; of which the latter does not possess such powerful medicinal qualities as the former. The different kinds of this tree now under cultivation in Southern India are enumerated in the note.[1] The

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circumstances of each case. He should not only have the charge and responsibility of the hospital establishment, but he should also daily inspect the inmates of the poor-house and have transferred to the hospital all such cases as in his judgment need special diet and medical treatment. The following are the principal sanitary rules. The sources of water-supply should be guarded, and if filtering is necessary the ordinary charcoal and sand filters should be used and cleaned once a week. Latrines should be placed to leeward of the prevailing winds and not in the vicinity of any sources of water-supply. The dry-earth system should be carried out, and the floor of the latrines well rammed. (7) *Rates for labour and relief.*—The following rates of wages should be paid to labourers on the different classes of works :—

—	First class.	Second class.	Third class.
Men including boys above 12 years and nursing mothers.	Value of 1½ lb. of grain + 1½ anna.	Value of 1½ lb. of grain + 1 anna.	Value of 1¼ lb. of grain + ¾ anna.
Women including girls above 12 years	Value of 1¼ lb. of grain + 1 anna.	Value of 1¼ lb. of grain + ¾ anna.	Value of 1⅛ lb. of grain + ½ anna.
Working children below 12 years	Value of ¾ lb. of grain + ¾ anna.	Value of ¾ lb. of grain + ½ anna.	Value of ⅝ lb. of grain + ⅜ anna.

The rations payable to persons under village relief and gosha women are the following :—Men including boys above 12 years and nursing mothers the value of 1¼ lb. of grain + ½ anna; to women including girls above 12 years the value of 1⅛ lb. of grain + ⅜ anna; and to children below 12 years, the value of ⅝ lb. of grain + ¼ anna. (8) *Arrangement of chapters of the Code.*—The instructions of the Code as roughly indicated above, are distributed in the Code as follows. Chapter I refers generally to the duties devolving on Government and local officers in connection with the administration of relief—prescribes the special staff to be provided for administrative purposes, and indicates the nature of the measures of relief to be adopted, these being divided into (i) Relief on works, (ii) Gratuitous relief, and (iii) other measures of relief. Chapter II contains rules for the guidance of Civil Officers—prescribes the duties of Collectors and the ordinary Revenue staff, and the extent of assistance to be given them, deals with relief on works executed under the supervision of Civil Officers, with gratuitous relief in towns, villages, and poor-houses, and with other measures of relief not coming under either of the above heads. Chapter III contains rules for accounting for famine expenditure by Civil Officers. Chapter IV has reference to the duties of the Public Works Department in its administrative and executive branches, provides for the maintenance of a programme of works, the mode of execution, the system of work, rates of wages, and the nature of reports and returns to be rendered. Chapter V deals with matters medical and sanitary—prescribes the administrative duties devolving on the Surgeon-General and the District Civil Surgeons; the duties of executive medical officers on works, and in charge of poor-houses, provides for measures of sanitation, and concludes with a carefully considered scale of rations suitable for all classes of persons in receipt of State relief. Appendix A contains useful hints for the execution of relief works under Civil supervision, and for the management of poor-houses and children's kitchens, with the necessary forms of account. Appendix B contains the forms of account and returns required by the Code to which sectional reference is made, and Appendix C the forms of account prescribed in the audit rules.

[1] List of South Indian Cinchonas with Dates of Introduction.

1. C. succirubra ..	Seeds—South America; Spruce	Feb. 1861
	Plants—South America; Cross	April „
2. C. calisaya ..	Plants—South America; Cross	„ „
	Plants—Java (originally collected in South America by Hasskarl in 1854); T. Anderson	Dec. „
	Seeds—South America; Markham	„ 1865
	Seeds—Including C. Ledgeriana); Money.	„ „
	Plants—Kew (originally from seeds collected in South America by Weddell); "Josephiana glabra" ..	„ 1866
	Plants—J. E. Howard; "Superior variety."	„ 1867
3. C. officinalis ..	Seeds—South America; Cross.	Feb. and Mar. 1862
	Plant—J. E. Howard (from seed collected by Don Riofrio in South America) "Uritusinga" ..	April „
4. C. lancifolia ..	Plants—Java (seeds originally collected in South America by Karsten); T. Anderson	Dec. 1861
5. C. nitida .. 6. C. species without name. 7. C. micrantha .. 8. C. Peruviana ..	Seeds—South America; Pritchett	Jan. „
9. C. Pahudiana ..	Plants—Java (originally collected in South America by Hasskarl in 1854); T. Anderson	Dec. „
10. Found among progeny of No. 3.		
11. C. Pitayo (C. Pitayensis).	Seeds—South America; Cross	„ 1869
12.	Plants brought from England; Simpson..	„ 1870

original cinchona of Peru, the Peruvian bark of commerce, is the C. officinalis; which is the kind usually cultivated. The following is a botanical description of it:—Tree: leaves oblong, acuminated at both ends, glabrous, shining, scrobiculate beneath at the axils of the nerves; limb of the corolla woolly; capsules ovate, twice longer than their breadth; stipules leafy, free, deciduous; flowers, terminal, in corymbose panicles, tube red, petals snow-white above; bark ashy. Cinchona is propagated by seeds, cuttings, and buds, the operations being usually carried on under glass; the great difficulty appears to lie in the proper hardening off of the plants when first raised, as it is only by a careful course of such hardening that they are enabled to endure the variations of the climate. The sites chosen for plantations are usually sheltered from wind, as it is injurious to the plants. Soil, drainage and elevation are all points for careful consideration. For red and yellow barks the elevation generally selected is from 3,000 to 6,000 feet, while the crown bark flourishes at from 6,000 to 8,000 feet. The commercial value of bark depends on the amount of quinine it contains. Mr. McIvor, a former Superintendent of Government Gardens at Ootacamund, devised a plan called the mossing system, by which the percentage of this alkaloid in bark is largely increased and waste from the wholesale destruction of trees is prevented. In the mossing system, instead of cutting down the tree to secure its bark it is left standing, and alternate perpendicular strips of bark about 1½ inch wide are removed from the trunk, intervening strips of the same width being left intact. As soon as this operation of stripping is completed the trunk of the tree is enveloped in a covering of soft moist tree moss, under which the renewal of bark on the denuded surfaces gradually takes place. The next crop is got by removing the strips of natural bark left after the first operation, and so on in after years. There are thus under this system three kinds of bark, viz., natural, or what is got by the first operation of stripping; mossed-bark, which consists of the strips of natural bark left covered with moss after the first stripping; and renewed-bark, which is the bark that forms under moss on the denuded surfaces. These designations have now become fixed commercial terms in the European market; and the mossed and renewed bark, especially the latter, fetch much higher prices than the natural product, owing to the changes in the quantity and nature of their alkaloid contents. Thus the natural bark of Cinchona succirubra contains chiefly cinchonidine and cinchonine, and is therefore sold at a comparatively low price for druggists' purposes; whereas the renewed bark of this species contains a considerable amount of quinine, and is therefore purchased by the quinine-makers at an enhanced rate for the manufacture of alkaloids. At the present time experiments are being instituted on the Government estates to test the coppicing system of harvesting cinchona bark, a method which needs no explanation. The 'shaving' process, invented by Mr. Moens of Java, is also under trial.

408. There are now four Government Cinchona plantations in the Presidency,[2] all on the Neilgherry Hills; viz., one at Dodabetta, one at Nedoowuttam,

[2] Sketch History of Government Cinchona in Madras.—(1) *Discovery of the medicinal value of cinchona.*—The knowledge of the uses and healing properties of cinchona, or, as it is more commonly called, Peruvian bark, existed from very early times among the natives of the country from which it was introduced into Europe. It was named by them 'Kina' or 'Kinken.' It is uncertain when the medicinal value of this bark first became generally known in Europe, but the Spaniards are said to have introduced it about the year 1640. The Jesuits also claim this discovery as their own. The name cinchona is said to have originated in the cure of the Baroness Chinchon, wife of the Viceroy of Peru (1639). This medicine attained great popularity in Spain and Italy, but afterwards falling into disuse it was again brought into notice by Sir Robert Talbot, an Englishman, who brought it to England in 1671, and gained much celebrity from the cures he effected by its means. From that period its use gradually extended both in England and France, notwithstanding the opposition of the faculty of medicine in the latter country. (2) *Introduction into India.*—For many years past the increasing demand for cinchona bark has been rendering it more expensive, and this, coupled with the risk of failure of supplies from South America owing to the improvident system of collecting practised there, induced the Secretary of State for India to attempt cinchona culture in the East. To the Indian Government cinchona bark is indispensable, as without it, or its active principles quinine, cinchonidine, &c., it would be impossible to keep an European army in India. In 1859 Her Majesty's Government engaged the services of Mr. Clements R. Markham for the special duty of introducing the cinchonas into India. He started on an expedition to South America in the early part of 1860 and arrived in India at the end of the same year with the first instalment of cinchona plants, which were taken to Ootacamund. These plants were in an unhealthy state when they arrived. A further supply was brought over by Mr. Cross and Mr. Spruce in 1861 from England and Java, and the Indian plantations on the Neilgherries raised from this stock proved successful beyond all anticipation. In July 1861 the experiment was entrusted to Mr. McIvor, under whose superintendence the plantations made satisfactory progress and proved a decided success. On the death of Mr. McIvor, which took place in 1876, the plantations were placed under the direction of the officers of the Forest Department, by whom they were administered till the year 1883. In 1867 there were more than two million plants on the Neilgherry Government plantations, an area of 677 acres being covered by them. (3) *Outturn and value of bark.*—As a pioneer experiment Government cinchona culture has necessarily been expensive, but it has had the effect of developing an extensive, new and lucrative industry in Southern India and Ceylon, and the outlay on the Government estates is now being balanced by substantial

two at Pykarrah called the 'Hooker' and the 'Wood.' There was formerly a fifth, the 'Stanley' plantation, situated at Mailcoondah on the Coondah range. This however was abandoned in 1871, with a view to ascertain whether the cinchona could be left to nature. The experiment has proved a failure, and the 'Stanley' estate is exterminated. Out of 65,000 trees estimated to have been there planted, about 10,000 only remained alive in 1880, while at the present time the majority of these have ceased to exist. The growth of these trees appears to have been checked by the rapid undergrowth of bramble and other scrub. The four working estates cover upwards of 850 acres, base measurement. The number of cinchona plants permanently established on these plantations is said to be 569,000 as per enumeration in 1878, of which the Officinalis and Succirubra number over a quarter of a million each. This statement must be taken however with qualification, as on some portions of all the plantations the trees have died outright, while on others many gaps are to be found. Operations of late years have been restricted in a great measure to conservancy, and the experimental cultivation of the rarer and more valuable varieties of cinchona. The plantations are under charge of an officer styled Director of Government Plantations, Parks and Gardens. Under his control there is an Assistant Superintendent, who superintends the works carried out on the Dodabetta and Wood estates, and a head overseer who exercises a similar supervision over the Nedoowuttam and Hooker plantations.

409. It has been considered desirable to re-establish the office of Government Quinologist, and the Government have secured the services of an officer from England, who will commence work at an early date.

410. Gardens.—The Ootacamund Botanical Gardens were opened during the Governorship of the late Marquis of Tweeddale, and cover an area of 51·45 acres. The professed object of the gardens is; the improvement of horticulture in this Presidency by the dissemination of information, the introduction and acclimatization of vegetable productions of Europe and other parts of the world hitherto unknown in India, and the distribution of good seeds and plants. In 1871 these gardens, which had hitherto formed a part of the charge of the Superintendent of the Cinchona Plantations, were placed under a separate officer, and their importance was further recognized by a more liberal allotment of funds. Since 1883 they have been placed under the management of the Director of the Government Cinchona Plantations, Botanical Gardens and Parks, Neilgherries. The Kulhutty Garden is maintained as a branch of the Ootacamund Gardens. It is adapted for the ripening of vegetable and flower seeds as it enjoys a drier and a warmer climate than that at Ootacamund. The Berliaur Branch Garden was purchased by Government in 1871 for the sum of Rupees 2,000. The garden is in charge of the Superintendent of the Garden at Ootacamund, and is worked out of funds provided in the budget for the latter. It is situated at an elevation of 2,500 feet above sea-level, and the extent is 8 acres. The object of its acquisition was to extend the

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profits. In 1882 after consideration of the whole subject it was decided to again place the management of the plantations under special agency, and a skilled English horticulturalist was appointed by the Secretary of State as Superintendent. This officer took over charge of the estates on the 8th of June 1883. The first yield of the plantations was in the year 1871, when the trees, which had been planted out at the commencement of the enterprise were nine years old. The outturn was 7,294 pounds of dry bark and was sent to England for sale, where it realized £763. The prices varied from 2*s.* 3*d.* to 2*s.* 10*d.* per pound, making an average of 2*s.* 6½*d.*, which must have been considered satisfactory. A second consignment of 23,646 pounds was made in the spring of 1873, and sold for £3,144, the average price being 3*s.* 2¼*d.*, per pound. The next consignment was made in 1875. The quantity despatched was 27,800 pounds and sold for £3,541, the average price per pound being 2*s.* 1*d.* Besides these there were five other consignments of bark to England in the years 1876, 1877, 1878, 1879 and 1880. The total amount of bark thus sent home in these five years was 567,800 pounds, and realized the large sum of £131,080. Since the year 1880 further consignments have been made of 540,000 pounds, but of this amount only 256,400 pounds were sold realizing £37,965, the rest being manufactured into quinine for the use of the Madras Government. The total amount of bark, therefore, which has up to the present date (June 1884) been sent to England is 1,166,540 pounds, of which 882,940 pounds have been sold for the sum of £176,493. In addition to these consignments, there have been held in Madras seven auction sales at which, 153,788 pounds of bark have been sold for Rupees 177,851; and this sum, taking the rupee at 1*s.* 8*d.*, is equivalent to £14,821. Besides the above, bark to the amount of 111,481 pounds was supplied to Mr. Broughton, the Government Quinologist, for conversion into febrifuge and this has been valued at 95,500 rupees or £7,962. Leaving out then the value of the 283,600 pounds of bark, which has been manufactured into quinine, the actual amount realized by the sale of bark from the Government estates has been £199,276. The actual cost of making and keeping up the estates has been £208,174. So that the whole of the capital invested by Government together with the interest thereon has been more than recouped. (4) *Appointment of a Quinologist.*—When Mr. Markham visited Ootacamund in January 1866 he suggested the appointment of a Quinologist to investigate on the spot various questions connected with the elaboration of alkaloids, the harvesting of the bark, the most economical and efficacious mode of preparing the febrifuge, &c. The services of the same officer were also to be turned to profitable account in utilizing the medicinal plants of India generally. This was carried out, and the office continued in existence to the end of 1875, when Mr. Broughton the incumbent resigned his appointment, after which it was abolished.

culture of the Ipecacuanha plant which was found not to flourish at Ootacamund. The locality was believed to be specially adapted for the growth of West India plants, as well as those from the Straits and the Eastern Archipelago. The experience of the past twelve years has proved that the garden is well adapted for the purpose contemplated. Liberian coffee has been experimentally introduced here, and the trees are growing well. In the early part of 1874 the Government opened a pleasure ground at Coonoor. The plot is about 30 acres. The outlay to the 31st March 1884 has been Rupees 24,795-14-7, provided exclusively by Government. This garden, which is styled 'Sim's Park,' in memory of Mr. J. D. Sim, a late Member of Council, possesses a rich soil and abundance of water, and is interspersed with natural sholahs. The whole now affords a very attractive appearance. A medicinal garden was opened at Ootacamund in 1877, agreeably to a suggestion made by the Surgeon-General, Indian Medical Department. It is about 5 acres in extent, and is cultivated with medicinal plants for supply to the Medical Department. So far as it has gone the experiment has proved a success.

411. A donation of Rupees 250 per mensem is paid by Government to the Agri-Horticultural Society at Madras, and an annual contribution of Rupees 500 is made for prizes for agricultural and other products, such as cotton, tea, cereals, forage, gums, resins, dyes, shade and avenue trees, &c.; special payments are also occasionally made.

412. FLORA OF THE PRESIDENCY.—A note on this subject written by Dr. Bidie, Sanitary Commissioner, will be found in Vol. II, App. V.

MINERAL RESOURCES.

413. INTRODUCTION.—In Vol. II, App. VI, will be found a full account of all the minerals in the Presidency, and hereafter following are abstract notices of the more important. The statement at foot [1] shows the different kinds of mines and quarries in the Presidency at the latest available date. The development of the mineral resources of the Presidency is at present in its infancy. Inquiries and investigations have however been made into the subject on several occasions, and since April 1885 a Government mineralogist has been appointed with orders to make a mineralogical survey of the Presidency, and to form a corresponding collection in the Central Museum at Madras. This officer submits his reports through the Director of Agriculture. The details of his work are being arranged in connection with certain plans of the Government of India. The position taken up with regard to the rights of Government varies with the tenures of the land containing the mineral resources. In lands sold under the waste land rules prior to 1879, the rights of the State are held to have lapsed. Neither does the Government assert any right to minerals in permanently settled estates or enfranchised inam

[1] MINES AND QUARRIES IN THE DIFFERENT DISTRICTS OF THE PRESIDENCY ACCORDING TO THE LATEST RETURN.

Districts.	Minerals produced.	Number of mines or quarries.	Districts.	Minerals produced.	Number of mines or quarries.
Anantapore.	Lime-stone	10	Chingleput...	Stone and gravel	40
	Yellow-stone	1		Laterite, granite, gravel and jelly.	35
	Chalk-stone	8		Stone	97
	Black slabs	11		Quarry and gravel	66
	Corundum-stones	21		Gravel and laterite	8
	Grind-stone	2	Coimbatore...	Gravel-pits	504
	Iron sand	5		Granite-stones	46
Arcot, North.	Iron	1		Iron	15
	Jelly-stones	16		Corundum-stones	95
Arcot, South.	Gravel	Not known.	Cuddapah ...	Stones	256
	Sand-stone	Do.		Sudda-stones	1
Bellary ...	Rock, building and lime stones.	82		White-stones	62
	Irone ore	1		Black-stones	11
Canara, South.	Iron	2		Red-stones	13
	Laterite-stones	1,350			

lands. In lands in the occupation of Government ryots or peasant proprietors no exclusive right to minerals is claimed on behalf of the State, but only a right to share in the produce. In the case of inams held on service tenure, i.e., as wages for public service, the holders are considered to have no right in minerals. Land at the disposal of Government and known or strongly believed to contain mineral wealth is removed from the category of cultivable land and is newly granted to applicants on special agreements only. Persons desirous of working minerals in ryotwarry or proprietary lands must make their own arrangements for obtaining the lands from the proprietors. Rules have been framed for obtaining from Government leases of waste lands for working gold, metals other than gold, and diamonds and other precious stones. Short leases are also granted for prospecting for gold and other metals under special conditions.

414. Description of the Different Minerals—*Coal.*—In 1870-71 the Geological Survey of India carried on the general mapping of the sandstone area in the eastern portion of the territory of the Nizam of Hyderabad, and southwards into this Presidency as far as Ellore in the Godavery district. On this occasion the coal-bearing rocks of the Godavery were mapped, and a series of borings for coal were taken near Doomagoodem, the head-quarters of the navigation works at the first barrier of the river. The coal was found to be of an inferior quality. The sandstones of this part of the country seem to belong to the true coal-bearing rocks, but to be for the most part devoid of coal. Later, in 1874–76, a series of borings were made in a small area of the Baraukar series (Lower Gondwana System) of coal-measures at Bedadnole in the Godavery district, where several seams of coal were struck, but in this case also the coal found was inferior in quality and unsuited for any application. The beds of the Baraukar series exposed at Bedadnole dip westward under the thick Kamptee sandstone (Upper Gondwanas) prevailing in that quarter. It is therefore difficult to form an estimate of their real extent, and the question of the presence or absence of valuable coal seams can only be definitely settled by further borings in the Ellore country. These isolated patches of coal-measures in the Godavery valley are the only ones known or likely to be found in the Madras Presidency proper; though very thin out-crops of lignite, of tertiary age, occur at Verkalay near Quilon. The Indian coal-measures are newer in age than the English carboniferous formation. *Copper.*—Copper ores are met with in the Cuddapah, Kurnool, and Nellore districts in old workings, the best indications being in

Districts.	Minerals produced.	Number of mines or quarries.	Districts.	Minerals produced.	Number of mines or quarries.
Ganjam	Gravel	261	Madura	Stone	89
	Metal	141		Gravel	32
	Rough-stone	16		Iron	4
	Lime-stone	3	Malabar	Iron	19
Godavery	Iron	45	Neilgherries.	Gold	11
	Lime-stone	9		Gravel	2
	Stone	148	Nellore	Granite-stone	1
	White pipeclay	18		Laterite-stone	48
	Gravel	14		Chunam-stone	2
Kistna	Gravel	477		Pumice	2
	Metal	1	Salem	Iron	237
	Black-stone	7	Tinnevelly	Lime-stone	6
	Lime-stone	306		Cut-stone	74
	Stone converted into iron	4		Rough-stone	105
	Copper	1		Gravel	104
	Slate-stone	30	Trichinopoly.	Gravel	54
	Stone used to construct cornices of houses having flat roofs.	1		Stone	31
	Pebble-stone	1		Soft-stone	11
Kurnool	Lime-stone	4	Vizagapatam.	Iron ore	43
	Black-stone	100		Lime-stone and gravel	688
	Iron ore	9		Chalk	31
	Soap-stone	3		Mica	2
	Diamond mines	12		Plate-stone	3
				Plumbago	3

the latter district, near Goonipenta, where, some 40 years ago, they were important enough to attract European enterprise, but without any successful result. Of late years attempts have again been made both in this region and in the Cuddapah district to work the copper ores. The Ellore mines are considered not to have been adequately tried, the traces of ore being frequent and promising, while the old attempts have been carried on by incompetent men met by the usual temptations and insalubrity of the climate. An English mining engineer of experience who recently reported on the Nellore copper-bearing rocks gave an unfavourable opinion of them, as the ore occurs in pockets and not in regular lodes and thus affords no surface indications which to follow up. *Diamonds.*—The diamond-bearing sandstones and conglomerates are of considerable extent in the Kurnool and Anantapore districts where they form the basement of the Kurnool series and crop out at frequent intervals around the outer boundary of the Kurnool basin, especially on its western side. They have been mined at Bunganapully, Moonimadoogoo and Goorramcondah in the latter district. At Ramalcottah and several other places in Kurnool district diamonds were, and are still, obtained by washing local alluvia formed of the debris of the diamond conglomerate. At and near Chennoor in Cuddapah district the gravel beds in the alluvium of the Pennair river, which consists largely of debris of rocks belonging to the Kurnool system, were formerly washed on a large scale, though now almost abandoned. Considerable tracts of the diamond conglomerate, the "Bunganapully conglomerate," of the Geological Surveyors, have been left untried as yet by the native miners. Conglomerate beds belonging to the Cuddapah system were formerly mined for diamonds in the Kistna district where deserted villages occur in great numbers to the north and west of Chintapully. To this set of mines belonged the old workings at Colloor, on the Kistna, which has been identified on good grounds with the Gani Coulour, of Tavernier, where the Kohinoor was obtained. The Ramalcottah and Bunganapally mines and workings appear still to yield a remunerative supply of small and rough diamonds; the right to mine being sold at a yearly auction. The so-called Golcondah mines either of Gollapully near Ellore, or in some parts of the Golcondah range of the Eastern Ghauts north of Rajahmundry have been long deserted. *Gold.*—The more important districts or localities in the Madras Presidency where auriferous quartz veins occur, or where there are abandoned gold workings, or where gold-mining operations are now carried on are as follows:—Devalah, Pandy river, Nelliaulam, Cholaudy, Cherambaudy, Moopenaud, Vythery, Carambat, Kelacoompoya and Carcoorpoya, Yeddacurra, Nelambore, Nunjenaud valley, Sisparra, Coonoor and near Wellington, Palghaut valley, Toodoocull river, Arliparamboor rivulet, Arnookyem river, Carcatoddy stream, sea-beach from Parpanangaudy to Cadaloondy and thence to Beypore, Cutchambaura on the bank of the Coodirapoya, Caroompoya and Poonapoya, Mijarra and Caurcal in South Canara, Tambrapurny, Godavery. The gold fields of the Wynaud [2] alone embrace a large area, and shallow pits and excavations made by the natives in times past, as well as the lines of races formed for conveying water for washing the auriferous soils and pounded quartz are found in numerous places. There are what appear to be native workings in the Nunjenaud valley, about four miles south-west from Ootacamund. At a height of 7,000 feet above the level of the sea near Devalah, and onwards towards Cherambaudy from 3,000 to 4,000 feet above the sea, large gold-mining operations were evidently at one time carried on by the natives. Down

[2] SKETCH HISTORY OF WYNAUD GOLD-MINING.—It is not known at what period the Wynaud gold mines were most productive, or whether indeed at any time they afforded employment to any very large number of miners. It is only certain that mining was followed to some extent at a remote period. The Malabar rajahs employed their subjects and slaves in mining, and got gold both from the soils and the reefs. As late as 1857 there were two or three hundred miners employed at Yelambullay (Parcherry hill near Cherambaudy). Other natives were at the same time getting gold at Carambat, Devalah, and elsewhere. At the close of the eighteenth century the gold mines of the Wynaud and the Neilgherries first attracted the attention of the Madras Government, and they were taken up to a certain extent as a source of revenue in 1803. Systematic attempts to ascertain their value date from the year 1831. Explorations were then begun, but as efforts were mainly, if not exclusively, directed to obtaining gold from the soils, and as the modes of occurrence of gold were then virtually unknown, little scientific knowledge was acquired. Thirty more years then elapsed before any further attempts were made officially or otherwise. Fifteen years back private persons were induced to prospect in the vicinity of Devalah. In 1875 after machinery had been erected near the Skull reef by the Alpha Gold Mining Company, and near the Yetticoolam reef by the Wynaud Prospecting Company, for treating the auriferous quartz, the Government directed Mr. King of the Geological Survey of India to examine and report on the Wynaud veins and mines. In August 1878 Mr. Brough Smyth was deputed at the instance of the Government of India to make a further and complete investigation.

the Carcoor ghaut at heights varying from 1,216 to 300 feet above the sea the quartz veins have also been worked. From the several reports which have been furnished it appears that there are throughout the Wynaud strong and persistent veins of quartz from two to fifteen feet or more in thickness, and that they are generally more or less auriferous. The general run of the reefs is parallel, the direction of strike being usually north and south, or rather a few degrees west of north and east of south. The dip of the reefs is as a rule very low as seen at the surface, and almost invariably a dip to the east. When out-cropping on the brows of the hills, and especially when heavily developed, the dip varies from a nearly horizontal line to from 20° to 30°, and increases in lower grounds. The reefs are composed of white crystalline compact quartz, identical in every respect with the reef quartz of Russia, Australia, California, Nevada, and other gold-bearing countries. There are more than one hundred out-crops of quartz in the southern part of South-East Wynaud; the form of the surface of the country admits of these being mined by horizontal shafts; water is abundant during at least nine months in the year, and reservoirs can be constructed at a small cost; and timber for supports in the mines can be procured at or near the main auriferous reefs. The note below [3] showing figures which are believed to be authentic regarding the gold companies found in the Presidency and Mysore in 1883 may still be of service. With regard to alluvial deposits of gold in this Presidency, it appears certain that there is at present no probability of their being worked with any profit on a large scale. A small quantity of gold is washed from stream gravels in the Godavery valley. The soils on the slopes of the Neilgherry hills where quartz veins appear at the surface are auriferous, and the natives have got a small quantity of gold from these by "ground-sluicing" and a kind of "box-sluicing." Near Needle Rock and on the Trevelyan Estate gold was got recently by sluicing; and at Seputty there is an ancient river-bed at one point showing a section of about 30 feet, which it is stated has yielded well. Nearly everywhere from Carambat to near Nelacottah and from Nadoocany to Cherambaudy old workings with the remains of races and aqueducts are to be observed. In none of these cases however are the profits sufficient to attract European capital.

Iron.—Remarkable deposits of magnetic iron ore [4] are found in several districts, notably Salem, South Arcot and Trichinopoly in the south and Nellore in the north. The ores occur in large beds of from 50 to 100 feet in thickness, and the out-crop may be traced for miles. On one hill, six miles from Salem, there are

[3] PARTICULARS OF SOUTH INDIAN GOLD COMPANIES IN 1883.

Name of company.	Date of formation.	Total capital.	Amount paid for lands.	Working capital.
		£	£	£
The South-East Wynaud Company	January 1880 ..	100,000	56,000	44,000
The Indian Glenrock Company, amalgamated with the South Indian Company	1880 ..	240,000	108,000	132,000
The Devalah-Moyaur Company	June 1880 ..	200,000	132,000	68,000
The Wynaud Perseverance Company	September 1880 ..	80,000	50,000	30,000
The Indian Phœnix Company	October 1880 ..	150,000	86,000	64,000
The Rhodes Reef Company	November 1880 ..	190,000	130,000	60,000
The Devalah Central Company	November 1880 ..	99,000	70,000	29,000
The Indian Trevelyan	February 1881 ..	150,000	100,000	50,000
The Tambracherry Company	February 1881 ..	160,000	120,000	40,000
The Nine Reefs Company	May 1881 ..	91,500	60,000	31,500
The Indian Consolidated Company	June 1881 ..	400,000	275,000	125,000
The Wentworth Company	June 1881 ..	120,000	80,000	40,000
The Cootacoil Company	June 1881 ..	100,000	60,000	40,000
The Mysore Company	July 1880 ..	135,000	55,000	80,000
The Colaur Company	August 1880 ..	75,000	40,000	35,000
The Ooregum Company	....	125,000	75,000	50,000
The Nundidroog	....	76,929	50,000	26,929
Ilithoray and Kartairy Gold Mining Company ..	July 1883 ..	30,000	7,500	22,500

[4] SKETCH HISTORY OF RECENT ATTEMPTS TO FORM IRON-WORKS.—In 1825, Mr. Heath, of the Civil Service, obtained a Government advance and formed a company to establish iron works at Porto Novo near Cuddalore, at Poolamputty near Salem, and at Beypore on the West Coast. At the last place the iron was to be obtained from laterite. The Porto Novo works were begun in 1833, and those at Beypore some years later. The Government gave their aid, but the experiments failed. The causes assigned were the distance of the works from the source of supply, scarcity of charcoal, and various other practical difficulties. Several companies took up the matter, but with no commercial success though the iron produced was of excellent quality.

five bands of magnetic iron from 20 to 50 feet thick. Many parts of the lateritic conglomerate in Poodoocottah State and Madura district as well as elsewhere on the Eastern Coast are rich enough to be worth smelting, if by forest conservancy the price of charcoal could be reduced sufficiently. Traces of an old iron industry on a large scale are to be met with in the south of Poodoocottah State. Though not of much extent or thickness, yet still of sufficient importance to be of considerable value in any further opening up of the country by rail or canal are some great veins of iron-ore in the Kurnool district, which occur in the Gunnygull and other smaller ridges near Ramalcottah some 12 miles south of Kurnool. The ore is the grey micaceous or specular iron oxide and is very rich. Old workings on pits are common all over the ridges, showing that much ore has been extracted, but only one or two furnaces appear to be worked now at intervals during the year. The drawback to this iron field is the scarcity of fuel. Iron-ore in the form of hæmatitic schist occurs in the Sundoor valley in Bellary district. Such information as is available regarding native working in iron will be found under the head of manufactures. *Lead.*—Lead ore occurs in the Nullamullay range of the Cuddapah district, where it was worked very largely in ancient times; but although the indications of its extent and richness are fairly good, no continuous or systematic attempt has been made by Europeans to re-open the mines. An official examination was made of these mines in 1858, but though the percentage of silver was large, the report was generally unfavourable. The latest assay of a small specimen gave 78 per cent. of lead, containing silver at the rate of 22 oz. 7 dwt. to the ton. *Miscellaneous.*—Among other minerals may be mentioned manganese in the Neilgherries and Bellary; copper-ore in many parts of the Eastern Ghauts; antimony and silver in Madura; corundum in the valley of the Cauvery. Garnets are abundant in the sandstone of the Northern Circars. Clays of fine quality fitted for high class pottery are to be found in large quantity in many of the patches of Upper Gondwana (Rajmahaul) rocks in the Trichinopoly, Chingleput, Nellore and Kistna districts. Building stones of great value and beauty are procurable in most districts in which the gneissic rocks occur. Extensive beds of crystalline limestone of many colours which would yield fine marbles for decorative purposes are to be procured in Madura, Trichinopoly, Coimbatore, and Salem districts. The sub-crystalline limestones of the Cuddapah and Kurnool rocks in the Cuddapah, Kurnool and Kistna districts yield rich and finely-coloured marbles in immense quantity in many localities, some of which are very favourably situated with reference either to railways and navigable canals or rivers.

FORESTS.

415. INTRODUCTION.—The objects of Government in connection with forests are two-fold. First to establish an equitable and reasonable correspondence between the resources of nature and the present demands of the inhabitants of the country, which will include not only the supply to the people of timber, fuel, charcoal, tree-produce, &c., but the guarantee through the forests of the regularity of the water-irrigation required by their fields. Secondly, so to husband the resources of the forests, viewing them as an estate or farm, as to ensure that they will exist hereafter in at least the same state of vigour and replenishment as at present; for without a rich vegetation India would soon cease to be inhabitable. According as attention is chiefly devoted to the former consideration, there will be a tendency in the direction of making forest conservancy into a pecuniary consideration, of endeavouring to show a commercial profit on it, and even of making new forest imposts. According as attention is chiefly directed to the latter consideration, there will be a tendency in the direction of regarding forest conservancy as a matter of absolute State necessity, to be maintained if necessary as a charge on the common purse. When it is considered that the two principal timber-trees of this country are scarcely fully grown within the greater part of a century, the value of the second or provident consideration will appear; and it is with a view to the impossibility of trusting these distant interests to private enterprise, that the Government have of late years

interfered to take the matter into their own hands. A Government in India has unusual facilities for so doing on account of the large areas of unoccupied country which are practically in their undisputed possession. It must be admitted however that there are heavy arrears to be made up by this new Government enterprise. In France forest was long thought to be inexhaustible as compared with the demands upon it, but timber has lately become scarce, and it has been necessary to institute conservancy. In the United States a forest law, in the sense of a law for conserving forests, is impending. Even in Australia, New Zealand and Tasmania, countries where the land has to be cleared before civilization can begin, it has been found that the clearing has been too rapid and conservancy has become a matter of consideration. In India the destruction of natural forests has been wholesale and suicidal. In the lower ranges of the Himalayas in Central India, in the northern and western portions of the Deccan, and in some parts of this Presidency, the forests can scarcely be restored, and must be replaced by planting. Where this is not the case, the invasion of the forests is going on perceptibly and rapidly. The Eastern and Western Ghaut ranges present the best prospects of recuperation.

416. It has been said that the most immediate object of the Forest Department is to meet the present demand for timber and fuel. But this demand is always increasing. The cultivators as their condition improves require to exchange mud huts for well-built houses fitted with more or less of furniture. The population itself increases, requiring more fuel. There is already a large demand for railway sleepers, and for railway and steam ship fuel. Internal trade also takes a greater quantity of teak, sandalwood, junglewood, catechu, lac, caoutchouc, myrobalams, and other forest products. The export of timber in some districts was formerly all seaward, but has now taken a course inland. As to the next immediate object, that of protecting the water springs, it may be explained that where the mountains are bare, the rain runs down unchecked and gives rise to floods at the base of the mountains and to freshes in the rivers, either of which by its sudden action destroys roads and cultivation, and causes immense quantities of water to run to waste; while on the other hand where there are forests the drainage is gradual, injury is averted, and irrigation is economical.

417. The main objects of practical forest conservancy are the definition and demarcation of reserved forests, the prevention of jungle fires, the exclusion of cattle, the opening out of roads, and the cutting and clearing away of creepers and grass round the young trees. The construction and care of plantations combine all the duties of arboriculture and those of forest conservancy. Under present circumstances the first step for the forester in order of time is probably that of the selection, definition, and legalization of close forest reserves. In this he is assisted by a special officer who modifies his proposals to suit such claims of right as appear necessary to be considered. After that there is a large area of land which for various reasons cannot be so taken up, but which nevertheless contains forest and therefore should not be entirely abandoned to the unchecked control of the people. Here again the people have frequently, indeed in most cases, enjoyed from time immemorial rights or privileges of pasturage, of clearing by fire, of migratory cultivation, of collecting fuel and products. All these considerations have to be dealt with in attempting to protect the areas. The result must be a compromise more or less arbitrary and only to be effected by the discretion of the officials, mostly of those who know the locality. The law however provides powers enabling the Government to make rules for all such matters, and these will gradually come into existence. The third step for the forester is the formation of new plantations and cultural operations generally. The question of levying charges on the people for fuel, charcoal, &c., whether in reserved or unreserved forests, is not essential to forest conservancy. It is sometimes merely a question of revenue. In other cases it may be regarded as the best means of exercising a check on consumption. This also comes within the scope of Government and departmental rules.

418. The superior forest officers come now from Europe, having passed a competitive examination before the Civil Service Commissioners in England and having spent subsequently a period of about three years at Nancy in France,

studying practical and theoretical forestry, surveying, road-making and the natural sciences. Nancy may perhaps shortly be exchanged for Cooper's Hill in England. It has been felt however for some time that it is quite necessary to temper the scientific knowledge of forestry acquired in such countries as Germany, France or England, with an intimate knowledge of the special conditions of India. Partly with a view to meeting this requirement a Forest school for natives of India was opened at Dehra Doon in the North-West Provinces, and this Presidency with others annually sends students there. A forest literature is still in its infancy, and handbooks for reference in the field are to be desired. Major Campbell Walker has published an interesting series of reports on forest management in Germany, Austria, and Great Britain. Colonel Beddome has completed a "Flora Sylvatica" for Madras, and Mr. Gamble a "Manual of Indian Timbers." A sketch is given below [1] of the principal timber-trees of this Presidency. Some further details of their distribution are given later on in the account of the two forest circles of this Presidency. In each of the statistical notices of districts in Vol. II, App. XII, will be found an account of the forests of that district. Many exotic trees have been introduced by the Forest Department into Southern India, such as eucalypti, mahogany, carob, casuarina, Australian blackwood, Australian wattle, maple, Spanish chestnut, cinchona, and others, some of which have succeeded beyond expectation. In the next note [2] is given a list of the principal forest products of South Indian forests. It is estimated that forests cover a total area in the mountains of the

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[1] DESCRIPTION OF TIMBER TREES.—(1) The Tectona grandis (Linn.), or teak-tree, is the most generally useful of the timber-trees found in this Presidency. It is largely employed in house and ship building, for which its durability and strength combined with its comparative lightness and its capability of resisting the attacks of white-ants make it especially valuable. In favorable ground the teak-tree shoots up very rapidly during the first ten years, after this time its growth is slower, and it is not considered mature until it is about 60 years of age, when it attains a girth of from 4 to 6 feet, reaching 8 feet when from 80 to 100 years old. Malabar teak and Godavery teak are considered the best, especially for ship-building, and the pre-eminence of the wood from those localities over that from Burmah is due to its greater density and hardness. Teak trees are usually girdled or killed by means of cutting through the bark above the roots, sometime before they are felled. This prevents the splitting which so frequently results from the trees being felled when green. Sometimes it is left for as long as two seasons before it is finally logged and removed, or else it is at once dragged off by elephants to the rivers and floated down to the sea. (2) The Shorea robusta (Gærtn.), or saul-tree, is probably the second best timber-tree, and its wood is in very general use for gun-carriages, railway-sleepers, house beams, bridges and works requiring large timber, but it is not suited to carpentry work. The saul which is found in the forests of the Circars and southwards scarcely as far as the Godavery only grows remarkably tall and very straight. (3) The Cedrela toona, the red cedar, or Indian mahogany, is very like mahogany in its wood, but closer-grained and lighter. It is much used for furniture. When new it is reddish in colour, but darkens and improves with age. It grows on the slopes of the hills, chiefly in ravines from the plains up to 5,000 feet and it is easily propagated. (4) Diospyros ebenum (Linn.), or the true ebony of commerce, is a native of parts of the Madras Presidency, but that given by D. melanoxylon in the Circar forests and D. tomentosa in those of the Deccan are more largely used, though but little is really exported; but the D. melanoxylon (Roxburgh), or Coromandel ebony, is very largely used. (5) Pterocarpus marsupium, or vengay wood, is found throughout the Presidency and produces a very durable timber useful for all constructive purposes. This tree yields the gum kino of commerce. (6) Pterocarpus santalinus, or red sanders, is confined to the districts of Cuddapah, Kurnool, Nellore, North Arcot and Chingleput, and furnishes a hard red-wood much valued for posts. The roots and stumps of this tree are exported largely to Europe for dyeing purposes. (7) Hardwickia binata, or achah wood, is found chiefly along the banks of the Cauvery in the Salem and Coimbatore districts and in Kurnool, Kistna, Bellary and Anantapore. The wood is dark, close-grained, and very heavy and durable. It is much prized for beams, but is difficult to convert and bring to market owing to its extreme hardness and great weight. (8) The Dalbergia latifolia, or black-wood tree, grows chiefly on the Western Ghauts though it is occasionally found of small size in most of the dry forests as well. Its wood is one of the most valuable in Southern India, largely used for furniture. (9) The following trees are valuable timber, but not so well-known in commerce:—The babool, Acacia arabica, a hard wood, used for gun-carriages, railway-sleepers, for fuel, &c.; it makes very good fire-wood and is of rapid and almost spontaneous growth, common in the Deccan and Carnatic. Acrocarpus fraxinifolius, or shingle-tree, growing in the Travancore mountains, Neilgherries, and South Canara, used for furniture and building purposes, and in Coorg for shingles. Artocarpus hirsuta, wild jack-tree of the Western Ghauts, has a timber which is used for furniture and general building purposes. Chickrassia tabularis, Chittagong-wood, is a light-coloured wood, well-veined, and taking a good polish, much used by cabinet-makers for furniture. Chloroxylon swietenia, satin-wood tree, also much used for furniture and for building purposes, more particularly for flooring. It grows chiefly in the Circars. Ougeinia dalbergioides is also a good timber-yielding tree. Gluta travancorica is a valuable timber-tree with a bright-red, black-streaked wood, durable, and taking a high polish. The Terminalias (T. tomentosa, T. paniculata and T. arjuna) and the Anogeissus latifolia are well-known building-timbers, while Soymida febrifuga, Odina cordifolia, the Lagerstrœmias, and others give woods of very considerable value.

[2] LIST OF FOREST PRODUCTS.—Besides timber, brushwood and bamboos, the following are also included as forest products. (1) Minerals and surface soil, including limestone, laterite, pipe-clay, soap-stone and similar substance. Peat is also included. (2) Canes and creepers, the former being very important in some districts, and some of the latter giving valuable materials. As an example of such may be mentioned the Bauhinia Vahlii, whose leaves are used for plates, caps, umbrellas, &c., and whose bark gives a strong fibre. (3) Reeds, such as the species of Arundo and Typha and the kinds of Cyperus used for mat-making. (4) Fibres. The following are the chief forest fibre plants:—Helicteres isora, Calotropis gigantea, Dæmia extensa, species of Grewia, Triumfetta, Sida, Sterculia, Hibiscus, Villebrunea, Böhmeria, Debregeasia, Sponia, the date-palms and some kinds of grasses like Andropogon contortus and Pollinia eriopoda. (5) Leaves. The leaves of Bauhinia Vahlii, Butea frondosa, Shorea robusta and other trees as well as of the plantain and wild gingers are universally used as plates and some species are made into mats, umbrellas, and other articles. (6) Moss. Used occasionally for litter and now extensively on the Neilgherries for 'mossing' cinchona trees after stripping or scraping the bark. (7) Flowers, fruits, and seeds are collected. The flowers of Butea frondosa, Woodfordia floribunda, and Cedrela toona are used as dyes, those of Bassia latifolia as food and for the distillation of spirits. The most valuable wild fruits are the mango, tamarind, custard-apple, wood-apple, bael, and jujube. The fruits of the myrobalam trees (Terminalia chebula, Terminalia belerica and Phyllanthus emblica) are collected as dyeing and tanning materials; those of the

Madras Presidency of more than 10,000 square miles. Over the whole of this area rules of conservation of greater or less strictness have for a long time been in force, though under no special legislative sanction. For supplying fuel to the railways, a total area of some 150,000 acres of Government waste have been placed under strict conservancy. In the remaining forests, after supplying local wants gratuitously, either timber has been sold direct by the department, or licenses have been granted to wood-cutters. The revenue from the latter has generally been somewhat in excess of the former. There are altogether 81 Government plantations, as opposed to natural forests, covering an area of 45,000 acres. The trees thus artificially reared are teak, red sanders, casuarina, Inga dulcis, sissoo, and eucalyptus. The department has been made to yield a considerable surplus from the commencement. The receipts for the last ten years have been 44 lakhs of rupees and the expenditure under 39 lakhs of rupees. When the Jungle Conservancy Fund was amalgamated with the Forest Department, there was a surplus in that fund of 4 lakhs of rupees. The exports of timber from the Presidency are at present destined almost entirely for Indian or quasi-Indian ports. Bombay is the chief customer. Of the total calculated by value, teak is one-third and sandalwood is another third.

419. LAW.—Under Madras Act V of 1882 the following classes of forests are constituted :—(1) reserved forests; (2) land at the disposal of Government and not included in a reserved forest which may be managed under rules framed under Section 26; (3) forest or waste lands not the property of Government, which, for special reasons, may be placed under the control of Government under Sections 29 and 31; (4) forests belonging to private owners, the management of which may be undertaken by Government at the request of those owners under Section 32; (5) forest in which Government or any other person or persons are jointly interested, which may be managed by Government under the provisions of Section 33. The Act proceeds to provide for the "control of timber in transit," for the establishment of a "forest court" in case of difficulties of appeal in the constitution of reserved forests, for "penalties and procedure," for "cattle trespass," for the duties of "forest officers," and for necessary "miscellaneous" matters. The "reserved forests" constitute the permanent forest property of the State, which once settled and legally constituted cannot be alienated or disafforested, without the consent of the Governor-General in Council. There are two methods of constituting reserves, viz., (1) by direct notification of forests reserved previous to the Act coming into force; (2) by a procedure of forest settlement of any lands at the disposal of Government. In the constitution of reserves by the first method of procedure there are two provisos: first, that an order of Government shall have constituted the forests; second, that all rights shall have been duly inquired into, settled and recorded. Under the second method of procedure a Forest Settlement officer not ordinarily a Forest officer is appointed to inquire into and settle all claims in or over the areas proposed to be constituted reserved forests. Rules under Section 26 having the force of law for the protection of lands outside of the reserves have been recently promulgated by Government. Rules under Section 35 having the force of law for the control of timber in transit are now under the consideration of Government, as well as similar rules under Section 63, prescribing the powers of the several classes of Forest officers and regulating the procedure of Forest Settlement officers and the grant of rewards to informers under the Act. Till the appearance of this Act forest offences were charged before Magistrates under the theft, mischief, and trespass sections of the Penal Code. The present Act makes specific offences and gives corresponding

soapnut (Sapindus emarginatus) and the climbing Acacia concinna as substitutes for soap; the seeds of Strychnos Nux-vomica in medicine. In the Neilgherries the fruits of Rubus ellipticus, Vaccinium leschenaultii and Rhodomyrtus tomentosa are eaten. The kernels of the Buchananias (Buchanania augustifolia and Buchanania latifolia) are edible. (8) Juice, catechu, gums and caoutchouc with wood-oil, resins, and varnishes are yielded by many species of forest tree. Catechu is the produce of Acacia catechu, Acacia suna, and Acacia sandra; valuable gums are given by Acacia arabica, Albizzias, Terminalias, Pterocarpus, and other trees; caoutchouc to some extent by climbers of the family of the Apocyneæ; wood-oil by the teak tree; and resins and varnish by the Canarium strictum, Vateria malabarica, the Shoreas, Hopeas and other Dipterocarpeæ. (9) Lac is little produced in Southern India and generally on Schleichera trijuga and Butea frondosa. (10) Honey and wax are found in most forests, the produce of about three species of bee—the commonest being Apis indica and Apis dorsata. (11) Skins, tusks, bones and horns. The chief of these is the ivory given by the tusks of dead elephants, and the shed horns of the samber and spotted deer, all found occasionally in the forests.

procedure. The law is shown in Vol. II, App. LIV, by subject-heads under the title Forests.

420. CONSTITUTION AND PROCEDURE OF DEPARTMENT.—The Presidency [3] is divided into two circles, each under a Conservator of Forests; the northern comprising the districts of Ganjam, Vizagapatam, Godavery, Kistna, Nellore, Cuddapah, Kurnool, Bellary, Anantapore, and the Neilgherries; and the southern comprising the districts of Chingleput, North Arcot, South Arcot, Tanjore, Trichinopoly, Madura, Tinnevelly, Salem, Coimbatore, Malabar, and South Canara. The Jungle Conservancy Fund is amalgamated with the Forest Department. The general control of the whole is given to Collectors, the District Forest officers and the staff under them being made directly subordinate to them. The Conservator's position is defined as that of the professional head of the department, the adviser of the Board of Revenue and Government in forest matters, and the officer responsible for the finance of the department and organization of the staff. The scale of establishments is sanctioned by Government, the appointment, posting, and promotion of the superior officers resting with them. The appointment, posting, and promotion of Sub-Assistant Conservators, Forest Rangers, and Foresters are vested in the Conservator. That of Forest Guards vests in the Collector. The forest offices are branches of the Collectors' headquarter offices. The details of forest organization and account have been brought together in a Departmental Code, introduced on 1st April 1885. An annual plan of forest operations is prepared by each District Forest officer, in communication with the Collector, and submitted to the Conservator with the Budget estimates. The Conservator furnishes the Collector with a memorandum of inspection, containing suggestions and an expression of his views on the district forest administration. These inspection memoranda are communicated to the Board of Revenue, and anything of more than ordinary interest, or requiring orders of higher authority, forms the subject of a special report. There are at present 13 forest divisions in the southern and 10 in the northern circle, corresponding as a rule with the districts

[3] SKETCH HISTORY OF MADRAS FORESTRY.—The first essay at forest conservancy in the Madras Presidency was the introduction of a state royalty over teak and other valuable timber in Malabar and Canara in 1807. The measure soon assumed the character of a Government monopoly of timber throughout all the coast districts of the Presidency, and led to abuses and to discontent on the part of proprietors and inhabitants. It was held to be objectionable and was abolished by Sir Thomas Munro in 1822. The forests continued in charge of Collectors, but no special arrangements were made for their conservancy. The present Forest Department had its first origin in 1847. In that year the Executive Engineer of Malabar brought to the notice of Government that the forests in Malabar and Coimbatore were being denuded of timber by the Malabar merchants who supplied the Bombay market, and that some arrangements were necessary to preserve them. On this a special officer was appointed to explore, conserve, and work the Government forests in those districts, and this arrangement continued in connection with the Public Works Department for seven years, though the work attempted was scarcely more than the extraction of the teak timber required by that department and the Bombay marine. The importance of a further step in forest conservancy, in providing not only for the felling and extraction of timber but also for the protection and reproduction of the forest growth had then become apparent, and an officer, Dr. Cleghorn, was appointed in 1856 as Conservator of Forests of the Madras Presidency. Up to 1871-72 the head of the department was directly responsible to Government, but in 1872-73 it was reorganized. The district officers were placed under the orders of the Collector, the account branch was transferred to the Board, and the office of Conservator was abolished and converted into that of Inspector of Forests, with the duty of visiting them and offering advice to Collectors. This arrangement, however, was found inconvenient, and the organization was again altered in 1875, when the department was placed on a footing somewhat similar to that adopted in Bombay, but the system and rules then introduced were never fully given effect to. Captain Beddome succeeded Dr. Cleghorn as Conservator in 1870, and held the appointment till December 1881, when he retired, and was succeeded by Major Campbell Walker. In the same year Dr. Brandis, Inspector-General of Forests to the Government of India, was deputed to confer with the Madras Government with regard to a forest law. The visit of Dr. Brandis to Madras terminated in February 1883, when his report was submitted. The Forest Department was reorganized in accordance with his suggestions and a Forest Act for the Madras Presidency, Madras No. V of 1882, received the assent of the Governor-General on the 11th October 1882, and came into force from the 1st January 1883. Side by side with the Forest Department a Jungle Conservancy Fund was organized in 1859 under the Revenue Department with the object of conserving and extending village jungles, which were being rapidly destroyed by the villagers and others in the exercise of ancient unrestrained privilege. A local tax on firewood cut and charcoal made for sale was levied through the village officers and applied to the formation of plantations, topes and avenues, it being understood that the privileges of the ryots in fuel, leaves for manure, and wood for implements intended for their own use and not for sale should be left undisturbed. The operations of the fund in the several districts commenced in different years ranging from 1860-61 to 1866-67. In 1868-69 the fund was in existence in all but the Madras, Neilgherry and Malabar districts. In 1869-70 it was established in the Neilgherries by the transfer of the jungles which were under the conservancy of the Forest Department to the charge of the Commissioner. These jungles were however retransferred to the Forest Department from 1875-76. At first the income of the fund was small and the operations necessarily limited. In 1868-69 it was considered that the operations of the fund had become sufficiently extensive to require the preparation of a detailed programme of the work to be done in each year, which was accordingly ordered and carried out from 1869-70, by which system uniformity in the operations has been secured. From 1871-72 the cost of roadside avenues was thrown upon Local Funds and the Jungle Conservancy Fund relieved of that charge. The Jungle Conservancy Fund, which had previously been worked separately by the Collectors, was on the 18th December 1882 merged in the Forest Department, and this became a branch of the Revenue Department. This order placed at length under one department the whole of the forests of the province, which, as shown in the text, were then divided between two circles, a northern and southern, under separate Conservators.

of the same name, the exceptions being Coimbatore and Malabar, in which there are two forest divisions. Each division is divided into ranges, under the charge of Rangers or Senior Foresters. Ranges are sub-divided into 'sub-ranges' (Foresters' charges) and 'beats' (Forest Guards' charges). A group of ranges is styled a sub-division under a Sub-Assistant or Junior Assistant Conservator. The sanctioned controlling staff is as at foot,[4] but it will be necessary to increase it. Orders have been passed under which the Government will send students to the forest school at Dehra Doon; this will enable the department to gradually secure a staff of trained Sub-Assistant Conservators and Forest Rangers.

421. The constitution of reserved forests under the new Act is now going on in most districts. Selection is chiefly made from the large areas of forest land already under management by the Forest Department or by the former Jungle Conservancy Department. The Forest officer entrusted with selection of blocks for permanent reservation considers the quality of the growth, the requirements of the neighbourhood, the question of the improvement of the supply of water in the streams, and the provision of sufficient area for probable requirements in grazing rights and similar privileges. He provides also for convenience of boundaries and for securing roads and rivers for export of produce. Having fixed on blocks he prepares a description sufficient for the purposes of Section 4 of the Act and a draft notification. These, after scrutiny by the Collector, the Conservator, and the Board of Revenue, are submitted to Government. If Government approve of the notification it is published in the Gazette and a Settlement officer is appointed. The first step of the Settlement officer is to issue a proclamation calling upon all those who have claims of any kind to land, to right of way, to grazing, to the use of water, &c., to bring forward those claims within a certain date. When that date has passed he holds a settlement court and under the procedure of special rules considers each claim, admits or rejects it as he considers fit, and finally records his orders. Against those orders appeal is allowed in land questions to the District Court, and in questions of easements to the Collector. When appeals have been heard and finally settled he reports the result to Government, who notify the land as 'reserved forests' if they approve of the notification. In cases of illiterate claimants or cases affecting the wild tribes the Officers of Government see that, even if not submitted according to fixed rule, the claims are nevertheless heard. Large areas in the southern circle districts have been notified under Section 25, whilst in almost all districts of both circles areas have been selected and notified under Section 4 and are now undergoing the procedure of Chapter II of the Act. The natural forests are worked either departmentally, i.e., by the departmental staff or contractors engaged and supervised by them; or on what has hitherto been known as the voucher and license system, and will hereafter be known as the permit system. The bulk of the timber is taken by the latter method, that is to say it is felled and removed by consumers or purchasers on payment of fixed rates of seigniorage per cart or head load. The rates and conditions are under revision. Departmental working has certainly the advantage so far as conservancy and improvement of the forests are concerned, but it is costly and requires the outlay of large capital in the shape of material, live-stock, and pay of establishments. The permit system is an easy method of collecting a revenue, and suits the ideas of the people; but on the other hand it gives an opening for damage to the forests and somewhat lends itself to fraud. The permit system will in all probability be gradually confined to the supply of the necessaries of life, e.g., fire-wood, bamboos, &c., consumers being restricted to certain defined areas. Special arrangements on the other hand will be made for disposing of trees fit for timber, either selling them standing or

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[4] CONTROLLING STAFF.

1 Conservator on Rupees 1,250 rising to Rupees 1,500 by five equal annual increments.
1 Do. 1,000 do. 1,250 do. do.
3 Deputy Conservators at Rupees 900 each.
3 Do. do. 800 do.
4 Do. do. 650 do.
4 Do. do. 550 do.
8 Assistant Conservators at Rupees 450, 350 and 250 each.

Total 24 officers.

felling and converting them previously. Felled timber can then be either taken to depôt for sale or sold in the forests to purchasers at fixed rates or by auction or tender. As regards minor forest produce in reserved forests it is as far as possible arranged that it should be collected by the resident hill-men or jungle-tribes and brought to the depôts at the boundaries of the forest, where it is paid for in cash or kind. In some cases it is leased to contractors, under conditions designed to avoid damage to the forest. Pasturage in reserved forests is as a rule granted on payment of grazing fees, also under conditions prescribed by the Government. Valuation-surveys and critical examination and report by experienced Forest officers are necessary to enable an approximate knowledge to be arrived at of the stock of timber available in the natural forests, the annual increment of the several species, and the best system of treatment, felling, and conversion. These points are now receiving special attention, but the great want is a trained staff of upper subordinates competent to carry out such professional inquiries and arrive at accurate conclusions. In reserved forests, as a rule no free pasturage, free timber or free fuel are allowed at present. The destructive practice of ponacaud, or coomry, that is to say cultivation of forest land annually cleared and annually deserted, is being brought under check; but it is a very old established custom. In those forests in which annual fires are frequent, special works of protection are adopted. These works vary according to locality and are among the most important with which the department is at present charged. In 1883-84 the area protected was:—Northern circle 341 square miles, Southern circle 524 square miles, total 865 square miles. The failures were 36 square miles only, or about 4 per cent. of area attempted.

422. For the management of forests which remain still at the disposal of Government after the selection of the reserved forests, rules have been framed under Section 26 of the Forest Act. The first provision is to divide the lands at the disposal of Government into 'reserved lands' and 'unreserved lands.' Of these the 'reserved lands' are special areas recommended for reservation by the Collector and the Conservator of Forests, and the 'unreserved lands,' the balance of the Government lands either acquired, assessed but unoccupied, or unoccupied and unassessed. The 'reserved lands' are those to which the chief provisions of the rules refer; the most important of these being that only yearly leases may be granted in them for cultivation. The provisions of Rule 7 arrange for the special appropriation for the use of villages of parts of forest land, on which the inhabitants can pasture cattle and cut wood free of charge subject to certain conditions designed to prevent the forest from being completely extirpated. The rules provide that out of the areas set apart as reserved lands selection may be specially made of fuel and fodder reserves; of grazing grounds; and of special fire-protected areas. In these all the produce including the pasturage is reserved to Government, and no hunting, shooting or fishing is allowed. Grazing is allowed free in unreserved lands and village forests, but is liable to be taxed in all others. In order to ensure that the better classes of tree are not too quickly cleared away, eighteen kinds have been selected and made 'reserved trees.' The list is shown at foot.[5] These trees are not allowed to be cut in the usual way on permit, but only by special arrangement made with the District Forest officer. To enable purchasers to cut other kinds of wood and bamboos, make charcoal, &c., they must procure a

[5] LIST OF RESERVED OR ROYAL TREES.

Botanical names.	English names.	Botanical names.	English names.
Tectona grandis	Teak.	Shorea tumbuggaia	......
Santalum album	Sandal.	Bassia longifolia and latifolia	......
Dalbergia latifolia	Blackwood.	Mangifera indica	Mango.
Pterocarpus marsupium	Kino.	Artocarpus integrifolia and hirsuta.	Jack.
Pterocarpus santalinus	Red sanders.	Diospyros ebenum and melanoxylon	Ebony.
Hardwickia binata	......		
Terminalia chebula	Myrobalam or gallnut.	Chloroxylon swietenia	Satinwood.
Tamarindus indica	Tamarind.	Xylia dolabriformis	Ironwood.
Shorea laccifera	......	Sapindus emarginatus	Soapnut.
Shorea robusta	Saul.		

'permit'; this is given on payment of fees at a fixed scale of rates ordered from time to time by Government. Permits for the better classes of timber are granted only by Forest officers; those for inferior kinds, bamboos, and charcoal may be given by such heads of villages who have been properly authorized to grant them. The permit-holder then goes to the forest to which his permit relates and cuts the produce specified on it, and as he removes it it is checked by a 'tannahdar' to see that only the proper amount is removed. The forest rules provide for other minor matters. The maximum penalty for breaking them has been fixed at one month's imprisonment or 200 rupees fine, or both.

423. Besides natural forests, the department has also new and artificial plantations under its charge. This important branch of forestry will be described hereafter under the head of the two circles.

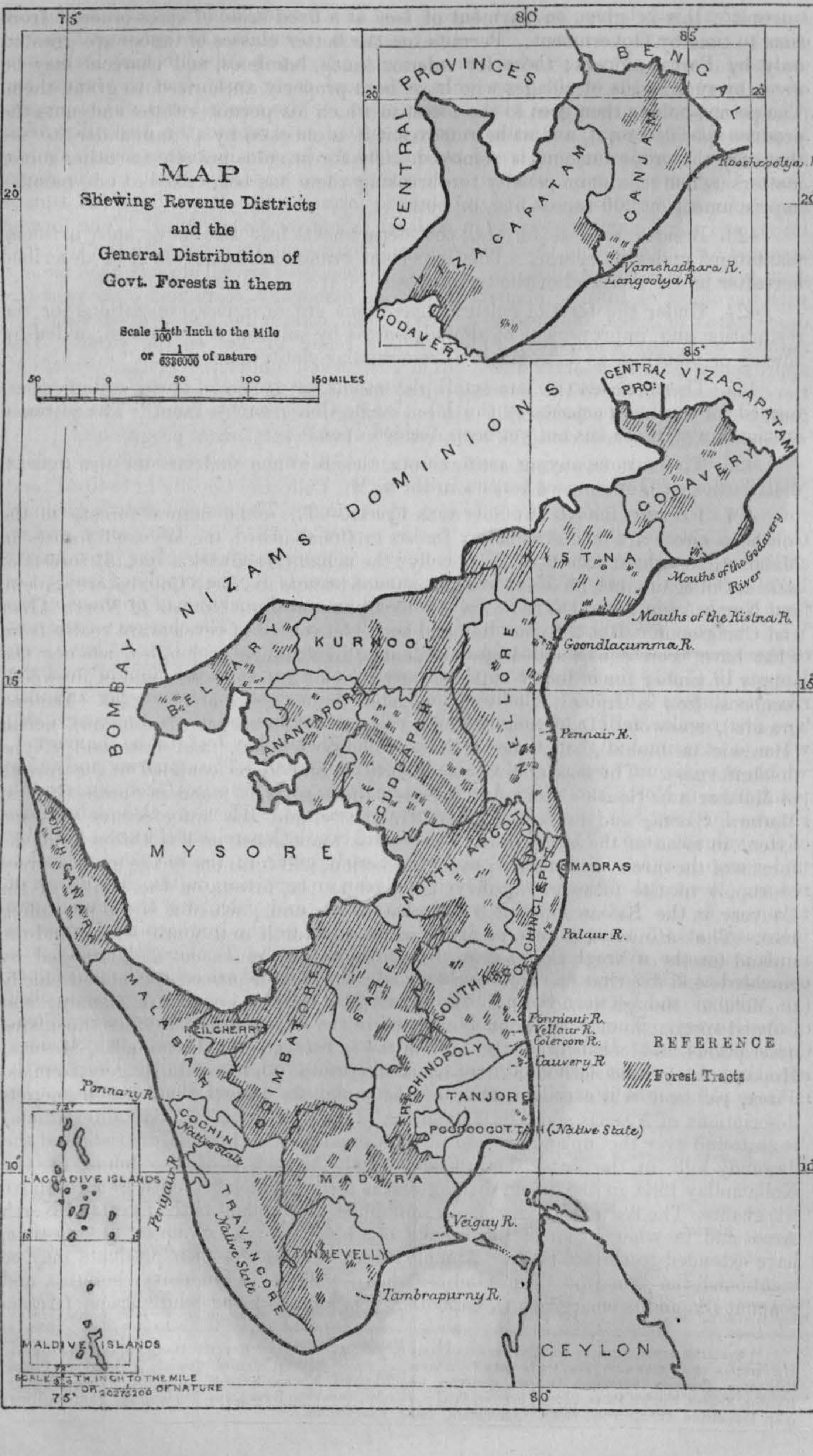
424. Under the term of cultural operations are designated operations for the restoration and improvement of denuded areas by natural reproduction, aided by sowing or planting, as distinguished from regular plantations.

425. There are also certain small plantations, or groves of trees, called topes, formed for various purposes by the late Jungle Conservancy Fund. The ultimate destination of these has not yet been decided upon.

426. The accompanying map shows the Revenue distrcts and the general distribution of Government forests in them.[6]

427. Particulars for the Southern Circle.—The chief natural forests in the southern circle are the Anamullay forests in Coimbatore; the Wynaud forests in Malabar; the ghaut forests of Tinnevelly; the achah (Hardwickia binata) forests of Salem, Collegaul, and Bhawany; the sandalwood tracts in North Coimbatore, Salem, and North Arcot; and the redwood (Pterocarpus santalinus) forests of North Arcot and Chingleput. But the chief demand and chief source of revenue are really from what have been considered forests of minor importance or jungles, whence the supply of timber for ordinary building and agricultural purposes, and of firewood, bamboos, &c., is drawn. The most valuable timber trees are the teak (Tectona grandis), rosewood (Dalbergia latifolia), vengay (Pterocarpus marsupium), achah (Hardwickia binata), satinwood (Chloroxylon swietenia), and ironwood (Xylia dolabriformis). The teak and rosewood may be said to be confined to the forests of Malabar and South Coimbatore, though the former is found in South Canara, Madura, Salem, and as far south as Tinnevelly, and the latter occurs to some extent in most of the hill forests. Vengay is found more or less throughout the forests of the circle, and, under proper protection, will form one of the main sources of supply of the future. Achah is confined to the forests on the banks of the Cauvery in the Salem and North Coimbatore divisions, where it is the prevailing tree. The satinwood is very plentiful in Salem, North and South Arcot, and the upland forests of North Coimbatore, but it has been so much cut and damaged by cowherds and fire that fine trees are very scarce. The ironwood is confined chiefly to Malabar though it occurs in the Anamullay forests and South Canara, and isolated specimens may be found elsewhere in the hill forests. Besides the above descriptions and constituting the bulk of the forests are the Terminalias, Mesuas, Hopeas, Anogeissus latifolia, Artocarpus integrifolia and hirsuta, Lagerstrœmias, Vitex, red and white cedars, &c., of the mountain forests, and the numerous descriptions of Acacias and Albizzias in the plains. The sandal (Santalum album) is scattered over the upland portion of the Coimbatore and Salem districts and the Jawaudy hills in the latter district and North Arcot. It is also found on the Kollamullay hills in the Salem district and in a small patch of South Canara above the ghauts. The redwood (Pterocarpus santalinus) is abundant in the forests of North Arcot and in what is left of the forests of Chingleput, which must, at one time, have extended to the sea-coast. Amongst trees valuable for their products may be mentioned the tamarind (Tamarindus indica), gallnut (Terminalia chebula), and soapnut (Sapindus emarginatus), babool (Acacia arabica) and white acacia (Acacia

[6] Spelling authorized by Government occurring in the Map showing Revenue Districts and the general distribution of Government Forests in them.*—Anantapur, Arcot, Bellary, Canara, Cauvery, Chingleput, Cochin, Coimbatore, Coleroon, Cuddapah, Ganjam, Godávari, Gundlakamma, Kistna, Kurnool, Lángulya, Madras, Madura, Malabar, Nellore, Nílgiri, Pálár, Pennér, Periyár, Ponáni, Ponniár, Pudukóta, Rushikulya, Támbraparni, Tanjore, Tinnevelly, Travancore, Trichinopoly, Vaigai, Vamsadhára, Vellár, Vizagapatam.


MAP
Shewing Revenue Districts
and the
General Distribution of
Govt. Forests in them
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
50 0 50 100 150 MILES
CENTRAL PROVINCES
BENGAL
VIZAGAPATAM
GANJAM
GODAVERY
Rooshcolya R.
Vamshadhara R.
Langoolya R.
CENTRAL PRO:
VIZAGAPATAM
NIZAMS DOMINIONS
KISTNA
Mouths of the Godavery River
Mouths of the Kistna R.
Goondlacumma R.
BOMBAY
BELLARY
KURNOOL
ANANTAPORE
CUDDAPAH
NELLORE
Pennair R.
MYSORE
SOUTH CANARA
NORTH ARCOT
CHINGLEPUT
MADRAS
Palaur R.
SALEM
SOUTH ARCOT
MALABAR
NEILGHERRY
COIMBATORE
TRICHINOPOLY
TANJORE
Ponniaur R.
Vellaur R.
Coleroon R.
Cauvery R.
REFERENCE
Forest Tracts
Ponnany R.
COCHIN Native State
POODOOCOTTAH (Native State)
MADURA
LACCADIVE ISLANDS
Periyaur R.
TRAVANCORE Native State
Veigay R.
TINNEVELLY
Tambrapurny R.
MALDIVE ISLANDS
CEYLON
SCALE 1/320 TH INCH TO THE MILE OR 1/20275200 OF NATURE
75° 80° 85° 20° 15° 10°

leucophlœa), which are frequent throughout the forests, and the catechu (Acacia catechu) of South Canara. The useful bamboo (Bambusa, Beesha, and Dendrocalamus) is very abundant, whilst the palmyra (Borassus flabelliformis) forms one of the chief features of the Tinnevelly plains and other coast districts, furnishing perhaps the largest supply of timber and leaves for the general uses of the people. Departmental working has hitherto been confined as a rule to the Anamullay teak forests, the sandalwood tracts, and portions of the forests in Salem, South Arcot, North Coimbatore, and Tinnevelly. There are two natural forests in the circle rented from proprietors, viz., the Colangode forest on the Anamullays (27 square miles) and the Nelambore forests in Malabar (about 30 square miles). The former is rented for the supply of teak, rosewood and vengay, and worked with the Government teak forests which adjoin it. The latter consists of several blocks leased mainly with the object of forming plantations of teak, mahogany, ceara, and other valuable descriptions of trees, indigenous or exotic, but containing also a good stock of natural teak, ironwood, &c., which finds a ready market on the coast. The approximate area of reserves in the circle constituted under the general powers of the department prior to the passing of the recent Act is shown in the statement at foot, but it has been considerably altered during the past few months by additions under the Act, and will continue to increase as forest settlement progresses.[7]

428. The most important artificial plantations in the circle are those of teak at Nelambore in the Malabar district started by Mr. Collector Conolly in 1840-41, and for some time known as the Conolly teak plantations. The planted area is given by Colonel Beddome, the Conservator, in his report of 1878, as 3,435 acres and no additions have since been made. It is now in contemplation to plant up another 1,000 acres at the rate of 150 acres per annum, mainly for the supply of teak poles from coppice stools, as there is a steady demand for this description of produce on the Western Coast for export to Bombay and the Persian Gulf. The charges on account of these magnificent plantations up to the close of the official year 1882-83 have been Rupees 10,47,938 (including compound interest at 4 per cent. per annum) and the receipts Rupees 7,67,665 (including compound interest at 4 per cent. per annum). The first regular felling of mature trees will not commence before the year 1900, when, it is estimated that, there will be 15,000,000 cubic feet to be harvested, which, at minimum rates, should realize Rupees 90,00,000. The casuarina and other plantations in North and South Arcot cover an area of 7,158 acres (according to the returns for 1882-83), which is steadily being increased. There are also plantations of this valuable tree in Chingleput, Tanjore, and South Canara, but the areas actually under crop in those districts are not very clearly given in the last administration report. A special officer was employed last year in reporting on the plantations of this tree in the Nellore district (northern circle), and calculated the annual acre increment at 4·5 tons, which, so far as experience in the southern circle goes, is much below the average. The area of plantations in the Trichinopoly district is estimated at 2,183 acres. They are chiefly situated on what are called the padoogays (i.e., strip of land between the natural and artificial bank of the river), on both sides of the Cauvery. They consist chiefly of Inga dulcis, Acacia arabica and leucophlœa, Cassia florida, and Dalbergia sissoo, with some patches of casuarina, which does not, however, exhibit such good results on alluvial as on sandy soil. The growth in these plantations is excellent, and it is proposed to extend them steadily. In

[7] RESERVED FORESTS IN SOUTHERN CIRCLE.

District.	Area on the 31st March 1883.		District.	Area on the 31st March 1883.	
	Acres.	Equivalent in square miles.		Acres.	Equivalent in square miles.
Chingleput	53,808	84	Madura	196,182	306
North Arcot	173,480	271	Tinnevelly	201,923	315
South Arcot	255,821	399	Malabar { Wynand	186,161	290
Salem	28,188	44	Malabar { Palghaut	19,386	30
Trichinopoly	4,176	6	Malabar { Nelambore ...	20,000	31
Tanjore	...	...	South Canara	879	1
Coimbatore. { North Coimbatore...	16,118	25			
Coimbatore. { South do. ...	104,878	163	Total ...	1,261,003	1,970

Tinnevelly there are extensive areas planted with palmyras, which are doing well and promise to yield a large revenue in the future, whilst reclaiming sandy wastes and furnishing a supply of wood, leaves, &c., for which there is an ample demand. The total area of plantations in the circle is entered in the Annual Administration Report for 1882-83 at 36,000 acres, but this includes, in some instances, "topes" and areas under protection, experimental sowing, &c., under the late Jungle Conservancy Fund, which do not rightly fall under the denomination of regular plantations.

429. Cultural operations, as defined above, are chiefly in progress in North and South Arcot, in which districts special attention has for some time been paid to this branch of forestry, which is likely to become more important and widely spread, now that the Act gives power to protect such tracts and the formation of fuel and fodder reserves in the plains is receiving special attention. Various methods of supplementing the natural growth and filling up blank spaces are being tried experimentally, in order to arrive at conclusions as to which is the best adapted to the local conditions of soil, climate, and rainfall. The plantations and cultural operations in the circle are shown below.[8]

430. Statement of the areas from which fire has been excluded in 1883 is next shown.[9]

431. The southern circle embraces at present thirteen separate forest charges or divisions, eleven of the first class under officers of the controlling grade, and two

[8] PLANTATIONS AND CULTURAL OPERATIONS IN SOUTHERN CIRCLE.

District.	On the 31st March 1883. Area. Regular plantations.	Area. Cultural operations.	Cost. Regular plantations.	Cost. Cultural operations.
1	2	3	4	5
	ACRES.	ACRES.	RS.	RS.
Chingleput	801	...	40,075	...
North Arcot	1,558	725	86,887	1,450
South Arcot	5,600	410	68,945	8,712
Salem	5	2,500	2,644	15,137
Trichinopoly	2,183	A. 29; M. 100	57,534	26,275
Tanjore	11,254	...	7,887	...
Coimbatore—				
North Coimbatore	177	71	46,418	24,864
South Coimbatore	19	105	4,402	8,362
Madura	224	219	12,952	...
Tinnevelly	10,081	3,645	1,251	2,245
Malabar—				
Wynaud	...	2	...	274
Palghaut	...	...	...	...
Nelambore	3,435	...	4,31,892	...
South Canara	687	...	13,687	...
Total ...	36,027	7,709; L.M. 100	7,74,574	87,319

[9] AREAS IN SOUTHERN CIRCLE PROTECTED FROM FIRE.

District.	During the dry season of 1883. Protected.	During the dry season of 1883. Year in which protection commenced.	District.	During the dry season of 1883. Protected.	During the dry season of 1883. Year in which protection commenced.
	ACRES.			ACRES.	
Chingleput	...	...	Madura	3,000	1882-83
North Arcot	173,525	1879-83	Tinnevelly	...	...
South Arcot	17,510	1876-78	Malabar. Wynaud	4,480	1880-81
Salem	12,261	1866-67	Malabar. Palghaut	3,017	1873-74
Trichinopoly	...	...	Malabar. Nelambore	...	...
Tanjore	...	...	South Canara	...	...
Coimbatore. North Coimbatore ...	...	1871			
Coimbatore. South Coimbatore ...	4,821	1882-83	Total ...	218,614	...

of the second under Sub-Assistant Conservators. The number of officers available is at present below requirement, and several important divisions remain unprovided for in consequence. There are two sub-divisions, viz., Wynaud and Tinnevelly ghauts in charge of Sub-Assistant Conservators, and 49 ranges under Rangers or senior Foresters; but the organization of divisions, &c., is at present probational.

432. The financial results of the circle for 1882-83, during which year it was separately constituted, are as follows: receipts, Rupees 5,14,802; expenditure, Rupees 3,85,235; balance, or surplus revenue, of the circle, Rupees 1,29,567. The outturn or yield of the forests in the circle through departmental agency for the year ending 31st March 1883 is as at foot.[10] But the bulk of the produce is removed by consumers and purchasers on payment of seigniorage. No accurate record of the quantities thus removed has hitherto been kept, but it is proposed to do so in future. It is impossible to institute comparisons, as 1882-83 was the first year of the existence of the circle as a separate administrative charge and there is no record of the outturn of the forests managed by the Jungle Conservancy Department previous to that year.

433. Particulars for the Northern Circle.—The chief natural forests in this circle are as follows. For the Circars there are; the large saul (Shorea robusta) forests in the Goomsoor talook (including Sooradah) and the Mohiry hill forests in the Berhampore talook of the Ganjam district. Further south are the forests of the Upper Godavery and of the Golcondah hills in Vizagapatam; the Kistna district forests lying in the Bezwada, Pulnaud, Vinoocondah and Sattenapully talooks; and the forests along the Veligonda hills and at Shreeharicote (bordering the Poolicat lake) in the Nellore district. In the Ceded districts the chief forests are the red sanders forests of Cuddapah, the Nullamullay hills of Kurnool, the yepi (Hardwickia binata) forests of Penoocondah in Anantapore, and the mixed forests of the Sundoor hills in Bellary. In the Neilgherries there are large forests of teak and other kinds on the north-east, the sandalwood tracts of the Moyaur valley and the sholah forests of the plateau. The revenue is derived principally from the following sources in different districts; viz., in Ganjam from the large sales of saul (Shorea robusta) timber, in Cuddapah from red sanders and railway fuel, in Kistna and Nellore from fuel, in the Neilgherries from sandalwood and teak, in Kurnool and Godavery from teak and other kinds of timber and fuel. A large proportion of the revenue is also contributed by the minor jungles of other districts which are to a great extent capable of meeting the ordinary local demand for building materials and agricultural implements, fuel, &c., as well as by the sale of minor produce, such as tamarinds, soap-nuts, strychnine seeds, cashew nuts, orchil, canes, and the valuable dyeing and tanning materials, tungaidoo (Cassia auriculata), myrabolams (Terminalia chebula and belerica), chay (Oldenlandia umbellata), &c. The rent of grazing and fodder grass in the Kistna and Nellore districts is a source of revenue. The most valuable timber trees are the sandal, teak (Tectona grandis), red sanders (Pterocarpus santalinus), rosewood (Dalbergia latifolia), saul (Shorea (robusta), sahajo (Terminalia tomentosa), chiriman (Anogeissus latifolia), ebony Diospyros melanoxylon), satinwood (Chloroxylon swietenia), tangany (Xylia dolabriformis), yepi (Hardwickia binata), yegy (Pterocarpus marsupium), tumba (Shorea tumbuggaia), jalaury (Shorea laccifera). Sandalwood grows in the northern slopes and Moyaur valley of the Neilgherry district, and to a small size near Srisheilam in the Kurnool district. Teak grows well in the eastern and southern slopes of the Neilgherry, in the Nullamullay hills of the Kurnool district and in the forests of the Godavery district. It is also found in Nellore, Cuddapah and Anantapore.

[10] Departmental Outturn, Southern Circle.

Teakwood—poles and saplings.		Blackwood.		Redwood.		Sandalwood.		Other junglewood.		Firewood and railway fuel.		Bamboos.		Forest produce.		Total valuation.
Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	
C. FT. 22,561, saplings 83,297	RS. 51,901	C. FT. 12,803	RS. 5,666	TONS. 200	RS. 2,409	MDS. 7,361	RS. 17,927	C. FT. 56,046	RS. 14,368	TONS. 3,953	RS. 9,241	NO. 43,173	RS. 1,602	MDS. 9,118 No. 900	RS. 2,834	RS. 1,05,948

Red sanders is found on the Palcondah hills and in the Seshachellam and Lunkamullay forests in the Cuddapah district and on the eastern slopes of the Veligondas in the Nellore district. Blackwood (Dalbergia latifolia) is found in the Neilgherries principally, but also to some extent in the other districts. Saul (Shorea robusta) is confined to the forests of Ganjam and Vizagapatam, and ironwood (Xylia dolabriformis) to the same areas extending northwards into the Kistna district. Irrespective of the more important trees just named, there are many others. The nellamadoo (Terminalia tomentosa), chiriman (Anogeissus latifolia), nellatoomma (Acacia arabica), soap-nuts (Sapindus emarginatus), casuarina, vepa (Melia azadirachta), moosty (Strychnos Nux-vomica), bamboos, canes, tungaidoo, &c., grow in almost all districts and are of great value. The mango and tamarind are often found wild or almost wild. The palmyra tree furnishes a useful material for building in districts where the arid nature of the country prevents the large growth of ordinary forest trees. Two forests belonging to zemindars in this circle have been rented, viz., Moodoomullay (128,000 acres) on the Neilgherries and Sundoor (about 40,000 acres) in Bellary. The former has been leased for 99 years from the Rajah of Nelambore on an annual rental of Rupees 3,500 and yields teak, blackwood and other species; and the Sundoor forest has been leased at an annual rent of Rupees 10,000, a convention having been signed on the 17th March 1884 for 25 years certain. This forest consists of a large number of valuable trees, exclusive of bamboos and other kinds of minor produce, and is expected in future years to yield considerable supplies for the adjoining country. A statement of the natural forests reserved under general or special orders passed before the passing of the Forest Act is shown at foot.[11] Proposals to constitute these and other important areas 'reserved forests' under the Act have been submitted or are in course of preparation and they will be so declared in due course on completion of forest settlement in each district.

434. The most important artificial plantations are the eucalyptus and wattle plantations on the high plateau of the Neilgherry district extending over an aggregate area of 1,392 with a revenue of Rupees 49,816 and cost of Rupees 46,000 up to 31st March 1883; in Nellore district the casuarina plantations on the coast aggregating 1,640½ acres with a total cost of Rupees 2,08,691, but now just coming into working and beginning to yield a return. Some plantations of casuarina and other trees are to be seen in Kistna and Godavery districts. In Cuddapah there are some small experimental plantations of red sanders and other trees, &c. In Anantapore babool and palmyra are found. The total area of plantations in the circle as entered in the annual report for 1882-83 is 8,950 acres.[12]

[11] NATURAL RESERVED FORESTS IN NORTHERN CIRCLE.

Districts.	Area on 31st March 1883.		Districts.	Area on 31st March 1883.	
	Acres.	Equivalent in square miles.		Acres.	Equivalent in square miles.
Godavery	43,520	68	Anantapore	3,325	5¼
Kistna	99,650	156	Neilgherries	37,740	59
Nellore	139,504	218			
Cuddapah	195,202	304	Total ...	519,941	812
Bellary	1,000	1½			

[12] PLANTATIONS AND CULTURAL OPERATIONS IN NORTHERN CIRCLE.

Districts.	On 31st March 1883.				Districts.	On 31st March 1883.			
	Area.		Cost.			Area.		Cost.	
	Regular plantations.	Cultural operations.	Regular plantations.	Cultural operations.		Regular plantations.	Cultural operations.	Regular plantations.	Cultural operations.
	ACRES.	ACRES.	RS.	RS.		ACRES.	ACRES.	RS.	RS.
Ganjam	...	3½	...	504	Kurnool	...	...	...	...
Vizagapatam ...	...	51	...	178	Bellary	...	14	...	...
Godavery	97	...	6,683	...	Anantapore ...	2,761	...	536	...
Kistna	1,194	...	10,395	...	Neilgherries ...	1,392	...	83,138	...
Nellore	1,660½	...	2,08,691	...					
Cuddapah ...	1,828	...	45,123	...	Total ...	8,932½	68½	3,54,566	682

435. In addition to the plantations there are a large number of useful topes made by the old Jungle Conservancy Department in almost all districts, as well as some small experimental areas which can scarcely be called plantations. Arrangements are being made in almost all districts to supplement the natural growth of the forest by artificial planting and by sowing seeds of useful trees in blanks and badly-stocked areas. Creeper-cutting has been begun in some districts. Considerable outlay is being incurred in the protection of selected areas from fire.

436. Particulars for fire protection are shown in the next note.[13]

437. There are ten forest districts, six of which are under Deputy Conservators, two under Assistant Conservators, and two under Sub-Assistant Conservators. The numerical strength of the superior staff is below the required number. The subordinate staff comprises four Sub-Assistant Conservators of which two are only probationers at present at the Dehra Doon forest school, 20 Forest Rangers, 43 Foresters, and 300 Forest Guards at a total cost of Rupees 5,243 per month. Office establishments make a further cost of Rupees 1,268. Total Rupees 6,511.

438. The financial results of this circle for 1882-83 were: receipts, Rupees 3,89,112, expenditure, Rupees 2,51,323. The balance or surplus revenue was therefore Rupees 1,37,789. The statement given below [14] shows a total revenue of Rupees 51,910 realized from the departmental sale of the various articles of forest produce including timber for 1882-83, while Rupees 2,64,468 were realized by sales to purchasers direct from the forests during the year. As this is the first year since the formation of the circle in December 1882, and many of the districts now included in it were till 1st April 1882 under the Jungle Conservancy Department, no comparison can usefully be made between the results of this and previous years.

439. GENERAL STATISTICS.—The table at foot [15] shows the nature of the

[13] AREAS IN NORTHERN CIRCLE PROTECTED FROM FIRE.

	During the dry season of 1883.
	ACRES.
Cuddapah	140,987
Bellary	13,800
Neilgherries	1,084
Total ...	155,871

[14] DEPARTMENTAL OUTTURN, NORTHERN CIRCLE.

Teakwood.		Sandalwood.		Red sanders.		Junglewood.		Firewood, &c.		Forest produce.		Total valuation.
Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	Quantity.	Valuation.	
C. FT. 6,827	RS. 5,062	MDS. 573	RS. 2,864	TONS. 1,056	RS. 13,326	C. FT. 24,489	RS. 17,246	TONS. 5,979	RS. 11,836	MDS. 3,482 105 loads.	RS. 1,576	RS. 51,910

[15] CLASSIFICATION OF RESERVES SELECTED IN SALEM DISTRICT TAKEN AS SAMPLE.

Name of talook.	Climatic and general.	Timber.	Railway fuel.	Village fuel.	Sandal.	Total area.
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Salem talook	42·05	23·78	18·90	21·60	...	106·33
Ahtoor do.	19·57	13·32	...	13·73	1·46	48·08
Namcull do.	13·08	6·36	...	4·29	...	23·73
Trichengode talook	...	...	...	...	...	...
Dharmapoory do.	28·33	39·55	...	12·10	2·12	82·10
Krishnagherry do.	...	6·00	9·33	17·55	...	32·88
Oossoor do.	71·65	115·55	...	41·33	16·89	245·42
Tripatore do.	54·00	34·35	18·10	24·26	2·72	133·43
Ootancaray do.	72·00	49·77	29·72	39·26	3·49	194·24
Total ...	300·68	288·68	76·05	174·12	26·68	866·21
Equal to acres ...	192,435	184,755	48,672	111,437	17,075	554,374

objects for which different areas have been proposed for reserve under the new Act in a district which may be regarded as one of the most important of the forest districts. In the following statement [16] is shown the quantity of timber and other forest produce felled and removed departmentally during the last year and the expenditure incurred thereon, as well as removals under the license and voucher system for the same year. The total amount spent on planting operations in the Presidency during the ten years ending 31st March 1883 was Rupees 4,42,281, but this includes the expenditure from the late Jungle Conservancy Fund from the last year only, as the figures formerly given cannot be separated. The total receipts and charges of the department have been as shown below [17] for ten years down to the close of 1882-83. The value of exported timber and wood from this Presidency amounted in a recent average year to Rupees 17,86,059. Teak was exported to the value of Rupees 5,74,342; sandal, of Rupees 5,35,911; and other timber, Rupees 6,48,817. Of the total export timber trade during that year, about 6·20 per cent. was carried on with foreign countries, of which, the United Kingdom took ·84 per cent.; Ceylon, 1·52 per cent., Straits Settlements, ·02 per cent.; and other countries, 3·80 per cent. 13·56 per cent. of the same was carried on with non-British ports in India. The inter-provincial trade took 80·25 per cent., of which, 74·72 per cent. was carried on with Bombay; about 1 per cent. with Bengal; ·02 per cent. with British Burmah; 4·52 per cent. with Scinde. Under the external trade with foreign countries the value of exported teak amounted to Rupees 36,579; of other timber amounted to Rupees 32,078; sandal, ebony, and other kinds of ornamental wood exported aggregated Rupees 30,768: while manufactures of wood exported amounted

[16] OUTTURN FOR PRESIDENCY.

Description of timber, &c.	By departmental agency. Quantity.		On license.		On free pass.
	Denomination.	1882-83.	Denomination.	1882-83.	1882-83.
Timber	Cubic feet	91,510	Cubic feet ...	306,551	30,959
	Saplings No. ...	83,297	No. ...	610	...
Redwood	Tons	200	...	...	...
Sandalwood	Maunds	7,361	...	...	...
Firewood and railway fuel	Tons	3,953	Tons ...	45,864	1,881
Bamboos	Cart-loads	...	Cart-loads ...	35,248	1,806
	No.	43,173	No. ...	10,700	...
Charcoal	Tons	...	Tons ...	1,811	...
Forest produce	Maunds	9,118	Maunds ...	152,904	...
	Toolaums	...			
	Measures	...			

[17] TOTAL RECEIPTS AND CHARGES OF DEPARTMENT.

Official year.	Receipts. Imperial.	Receipts. Jungle Conservancy.	Receipts. Total.	Charges. Imperial.	Charges. Jungle Conservancy.	Charges. Total.	Balance. Imperial.	Balance. Jungle Conservancy.	Balance. Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1873-74 ...	4,64,194	1,66,892	6,31,086	3,53,184	2,26,724	5,79,908	+1,11,010	− 59,832	+ 51,178
1874-75 ...	3,64,326	1,54,615	5,18,941	3,97,872	2,23,140	6,21,012	− 33,546	− 68,525	−1,02,071
1875-76 ...	4,26,359	2,51,577	6,77,936	4,30,083	2,30,869	6,60,952	− 3,724	+ 20,708	+ 16,984
1876-77 ...	4,15,312	1,77,974	5,93,286	4,13,970	2,28,703	6,42,673	+ 1,342	− 50,729	− 49,387
1877-78 ...	4,04,164	1,53,657	5,57,821	3,82,493	2,06,199	5,88,692	+ 21,671	− 52,542	− 30,871
1878-79 ...	3,83,694	2,36,266	6,19,960	3,41,804	1,70,368	5,12,172	+ 41,890	+ 65,898	+1,07,788
1879-80 ...	3,65,750	2,62,248	6,27,998	3,81,228	1,70,011	5,51,239	− 15,478	+ 92,237	+ 76,759
1880-81 ...	5,01,839	2,35,054	7,36,893	3,52,004	1,69,454	5,21,458	+1,49,835	+ 65,600	+2,15,435
1881-82 ...	5,06,710	2,99,428	8,06,138	3,91,186	2,13,177	6,04,363	+1,15,524	+ 86,251	+2,01,775
1882-83 ...	5,63,899	3,40,015	9,03,914	4,15,458	2,21,100	6,36,558	+1,48,441	+1,18,915	+2,67,356
Total ...	43,96,247	22,77,726	66,73,973	38,59,282	20,59,745	59,19,027	+5,36,965	+2,17,981	+7,54,946

to Rupees 20,327. In the coasting trade with the Indian ports the export of teak amounted to Rupees 5,67,452 in value; and other wood, to Rupees 6,92,883. The value of timber and manufactures exported coastwise to different ports within the Presidency was Rupees 2,05,075.

TRADE.

(a) *Sea-going Trade—General.*

440. Nature of the Trade.—The continuous sea-board of the Madras Presidency, without any natural harbours of the first rank, has tended to create a sea-going trade rather diffused than concentrated. As compared with the other Presidencies indeed, the trade of Madras is broadly marked by the larger proportion assigned to coasting trade with other Indian ports and with Ceylon. The value of the coasting trade was experienced in 1876-77 (the first year of the recent famine) when the imports of grain suddenly rose from 170,423 tons, valued at 103½ lakhs of rupees, to 687,850 tons, valued at 615½ lakhs of rupees, this mostly consisting of rice from Bengal. These figures include imports from Ceylon which amounted in 1875-76 to 50 tons, valued at Rupees 3,800, and in 1876-77 to 5,370 tons, valued at Rupees at 6,48,200. Madras town, as the chief centre of population and the eastern terminus of the railway system, absorbs nearly one-half of the total sea-borne commerce. But the remainder is very generally distributed. After Madras town comes Malabar district, containing the western railway terminus near Calicut; then Godavery, with its various ports on the sea-board of the delta; Tinnevelly, with the new harbour at Tuticorin, which has opened large dealings with Ceylon; and South Canara, Tanjore, Vizagapatam, and Ganjam, in the order given. The aggregate excess of export value, or favourable balance of trade, is comparatively smaller in Madras than in the case of either of the other two Presidencies. The export trade of the Presidency consists chiefly of agricultural produce, cotton, oil or oil-seeds, grain, coffee, ginger, turmeric, dyewood, indigo, skins, &c.; but the Presidency cannot be said to produce any large staple of export corresponding to the raw cotton of Bombay, or the jute, indigo, tea, and oil-seeds of Bengal. The imports consist mostly of piece-goods, twist, metals, liquors, &c. The export and import trade used to be entirely in the hands of European merchants, but native traders are now beginning to conduct their operations direct with Europe, without the intervention of the local houses of agency.[1]

441. Arrangements for collecting and distributing sea-going trade statistics.—The task of compiling trade statistics is undertaken by the Customs Department at

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[1] Nature of Trade for whole of India.—The imports of bullion and specie into India are mainly from the United Kingdom, China, and in 1882 and 1883 from Australasia, while the exports are shipped principally to the United Kingdom, Ceylon, China, and South Africa. About four-fifths of the imports into India and more than half the exports go by the Suez Canal. Of the imports in 1882, 43,447,848*l.* came from the United Kingdom. Next in magnitude of imports stands China, 4,430,469*l.*, in 1882; Straits Settlements, 1,628,722*l.*; Mauritius, 965,885*l.*; Italy, 916,672*l.*; Arabia, 830,559*l.*; France, 759,462*l.* For exports the United Kingdom stands at 34,937,974*l.* in 1882; China, 13,632,564*l.*; France, 8,017,036*l.*; Straits Settlements, 3,540,925*l.*; Italy 3,107,601*l.*; United States, 2,695,434*l.*; Austria, 2,436,516*l.*; Belgium, 1,970,579*l.*; Egypt, 1,715,664*l.*; Persia, 1,277,615*l.*; Mauritius, 1,004,645*l.*; Arabia, 993,683*l.*; Australasia, 799,687*l.*; Germany, 758,393*l.* The staple article of export from India to the United Kingdom is raw cotton; but the quantities, and still more the value of the exports, have been greatly on the decrease within the last decennial period. Next to cotton, the most important articles of export from India to the United Kingdom in the year 1882 were wheat, 8,461,004 cwt., of the value of 4,352,270*l.*; jute, 5,931,047 cwt., of the value of 4,311,102*l.*; seeds, chiefly linseed 1,511,543 quarters, of the value of 3,614,695*l.*; rice, 7,847,509 cwt., of the value of 3,024,538*l.*; tea, 53,576,697 lb., of the value of 3,498,188*l.*; dye stuffs (chiefly indigo), of the value of 2,712,374*l.*; leather, of the value of 1,587,673*l.*; untanned hides, 353,946 cwt., of the value of 1,300,965*l.*; coffee, 233,900 cwt., of the value of 1,020,610*l.* The chief articles of British produce imported into India are cotton goods and iron. The imports of cotton manufactures, averaging two-thirds of the total British imports into India, were of the value of 15,020,646*l.* in 1873; of 16,216,491*l.* in 1874; of 15,699,713*l.* in 1875; of 14,934,370*l.* in 1876; of 16,692,865*l.* in 1877; of 15,078,497*l.* in 1878; of 14,415,456*l.* in 1879; of 22,099,267*l.* in 1880; of 20,168,931*l.* in 1881; and of 19,521,957*l.* in 1882. Of iron the imports amounted to 1,637,584*l.* in 1876; to 1,923,820*l.* in 1877; to 1,767,526*l.* in 1878; to 1,535,901*l.* in 1879; to 2,415,309*l.* in 1880; to 1,913,511*l.* in 1881; and to 2,322,986*l.* in 1882. The value of copper imported in 1882 was 1,028,740*l.* In addition to the seaboard trade of India there is a considerable frontier land-trade; the imports by this route were valued at 4,591,484*l.* in 1882, and 5,340,000*l.* in 1883, one-half coming from Upper Burmah and Nepaul. The exports were valued at 4,275,056*l.* in 1882, and 4,653,000*l.* in 1883, one-half to these two countries. In 1883 there entered into Indian ports 5,864 vessels of 3,538,878 tons, and cleared 5,851 of 3,533,006 tons. The number of steam vessels which entered Indian ports, viâ the Suez Canal in 1873 was 259, of 318,300 tons; in 1882, 929, of 1,370,242 tons; in 1883, 711, of 1,152,440 tons; cleared in 1873, 273, of 308,524 tons; in 1882, 1,060, of 1,517,746 tons; in 1883, 934, of 1,433,480 tons.

Madras by the Collector of the Sea Customs reporting to the Board of Revenue, and at the out-ports by the Customs Superintendent acting under the orders of the District Collectors. When applications are made for exporting goods or clearing those imported, the applicants are required to specify in their applications the quantities and values of the articles with all the particulars required for statistical purposes, and after the applications are passed and the prescribed duty, if any, collected, the information required is compiled from them, tabulated, and submitted to the Collector. From this information the returns required are compiled in certain forms prescribed for the purpose and brought together for the whole Presidency in the Board's office. Trade statements are forwarded to the Government of India by the local Government every month. New forms of statements were brought into use in the year 1875. An important feature of the present forms is that they are made to exhibit not only the external trade, but also the trade from port to port within the Presidency, which was not formerly shown in the returns. The following are the principal particulars recorded :—(1) the quantities and values of goods, and the value of gold and silver exported or imported; (2) the ports from and to which exports or imports are made; (3) the quantities left in bond and those cleared for home consumption; (4) the amount of duty collected and the articles upon which it is charged; (5) the amount of refunds and drawback allowed; (6) the number of vessels cleared and entered, distinguished into steam and sailing, in cargo, and in ballast; (7) the countries from which they enter or to which they clear; and (8) the nationalities and tonnage of vessels. The statistics are reviewed, and any impediments to the progress of trade are noticed, by the Revenue Board annually.

442. AMOUNT OF THE TRADE.—The total value of the sea-borne trade of this Presidency during 1882-83 exclusive of stores and treasure on account of Government amounted to Rupees 21,22,77,436, as shown at foot.[2] Of the total sea-borne trade of this Presidency about 62·71 per cent. is carried on with foreign countries, 1·21 per cent. with foreign ports in India, while the trade with other Presidencies amounts to about 21·34 per cent., and the interportal trade within the Presidency to about 14·74 per cent.

[2] AMOUNT AND NATURE OF TOTAL SEA-BORNE TRADE OF THE PRESIDENCY.

Destination.	Nature.	Import.	Export.	Total.
		RS.	RS.	RS.
Trade with foreign countries	Merchandise	4,58,33,679	8,23,96,242	12,82,29,921
	Treasure	34,55,882	14,28,641	48,84,523
	Total ...	4,92,89,561	8,38,24,883	13,31,14,444
Trade with British ports in other Presidencies.	Merchandise	2,37,47,399	2,12,66,942	4,50,14,341
	Treasure	2,24,077	52,051	2,76,128
	Total ...	2,39,71,476	2,13,18,993	4,52,90,469
Trade with Indian ports not British ...	Merchandise	2,82,293	21,09,647	23,91,940
	Treasure	1,74,614	10,925	1,85,539
	Total ...	4,56,907	21,20,572	25,77,479
Interportal trade within the Presidency.	Merchandise	1,22,75,491	1,29,20,183	2,51,95,674
	Treasure	33,16,538	27,82,832	60,99,37C
	Total ...	1,55,92,029	1,57,03,015	3,12,95,044
Total ...	Merchandise	8,21,38,862	11,86,93,014	20,08,31,876
	Treasure	71,71,111	42,74,449	1,14,45,560
	Total ...	8,93,09,973	12,29,67,463	21,22,77,436

443. Trade by districts.—The share of each district in the total value of the general trade including treasure for 1882-83 is shown below.[3] The chief port has, of course, the largest share, or nearly half of the trade; Malabar comes next with 19·5 per cent.; then follow Godavery with 8·2 per cent., Tinnevelly with 8 per cent., South Canara with 4·5 per cent., and Tanjore with 4·4 per cent.; after these come Vizagapatam, Ganjam, Kistna, South Arcot, Madura, and Nellore, in order. At the port of Madras the import trade is the more important, in other districts the exports.

444. Trade according to countries engaged.—The subjoined comparative statement [4] shows the extent of the imports and exports of merchandise and treasure with the principal countries engaged in the trade during the year 1882-83. The exports to the United Kingdom amount to 475½ lakhs and the imports

[3] Trade by Districts.

Districts.		Trade with foreign countries.	Trade with foreign ports in India.	Trade with other Presidencies.	Trade between ports within the Presidency.	Total.
		RS.	RS.	RS.	RS.	RS.
Madras	Imports ...	4,30,59,588	28,676	63,18,194	24,27,325	5,18,33,783
	Exports ...	3,83,38,117	74,594	19,78,565	47,90,259	4,51,81,535
Ganjam	Imports ...	8,396	1,352	9,54,891	5,30,759	14,95,398
	Exports ...	17,43,194	603	12,95,052	13,92,814	44,31,663
Vizagapatam	Imports ...	1,01,365	3,775	11,67,665	19,19,859	31,92,664
	Exports ...	33,86,684	35,727	4,05,607	13,27,944	51,55,962
Godavery	Imports ...	1,44,013	81,432	15,18,305	30,23,323	47,67,073
	Exports ...	75,21,781	26,346	44,28,101	7,96,016	1,27,72,244
Kistna	Imports ...	12,393	321	4,10,378	8,62,627	12,85,719
	Exports ...	36,116	7,075	9,21,162	9,37,930	19,02,283
Nellore	Imports ...	...	...	...	13,132	13,132
	Exports ...	...	51,702	55,260	...	1,06,962
South Arcot	Imports ...	1,65,120	1,061	1,275	5,65,068	7,32,524
	Exports ...	1,91,260	...	4,36,765	1,25,481	7,53,506
Tanjore	Imports ...	24,83,727	2,056	6,87,776	4,78,016	36,51,575
	Exports ...	51,73,737	6,790	2,94,740	2,36,959	57,12,226
Madura	Imports ...	2,34,560	60,207	1,26,031	1,99,203	6,20,001
	Exports ...	3,12,910	591	...	1,50,783	4,64,284
Tinnevelly	Imports ...	23,24,999	24,352	12,41,582	6,29,394	42,20,327
	Exports ...	1,08,36,963	2,635	13,86,548	6,54,972	1,28,81,118
South Canara	Imports ...	1,80,983	1,79,287	13,29,247	13,16,426	30,05,943
	Exports ...	24,72,323	6,08,782	17,61,346	18,27,592	66,70,043
Malabar	Imports ...	5,74,417	74,388	1,02,16,132	36,26,897	1,44,91,834
	Exports ...	1,38,11,798	13,57,429	83,59,405	34,07,005	2,69,35,637
Total ...	Imports ...	4,92,89,561	4,56,907	2,39,71,476	1,55,92,029	8,93,09,973
	Exports ...	8,38,24,883	21,20,572	2,13,18,993	1,57,03,015	12,29,67,463

[4] Trade according to Countries engaged.

Countries.		Merchandise.	Treasure.	Countries.		Merchandise.	Treasure.
		RS.	RS.			RS.	RS.
United Kingdom ...	Imports.	3,91,56,547	7,16,500	Réunion or Bourbon.	Imports.	...	...
	Exports.	4,75,52,965	4,60,946		Exports.	1,60,614	...
Austria	Imports.	66,155	...	Other countries in Africa.	Imports.	10,012	...
	Exports.	25,94,196	...		Exports.	16,004	...
France	Imports.	8,52,188	14,441	United States ...	Imports.	1,34,699	...
	Exports.	99,24,576	...		Exports.	38,22,507	...
Germany	Imports.	20,821	...	Aden	Imports.	185	...
	Exports.	3,63,835	...		Exports.	7,501	...
Italy	Imports.	1,52,743	...	Arabia	Imports.	31,410	10,000
	Exports.	14,28,704	...		Exports.	1,79,711	...
Malta	Imports.	1,300	53,173	Ceylon	Imports.	34,72,428	9,15,163
	Exports.	52,222	...		Exports.	71,35,482	9,66,194
Spain	Imports.	2,241	...	China	Imports.	34,989	16,117
	Exports.	11,00,005	...		Exports.	5,55,722	...
Other countries in Europe.	Imports.	4,440	...	Japan	Imports.	692	...
	Exports.	74,842	...		Exports.	1,21,038	...
Egypt	Imports.	276	16,61,052	Java	Imports.	159	...
	Exports.	43,62,045	...		Exports.	1,43,019	...
Mauritius	Imports.	70	...	Persia	Imports.	3,599	...
	Exports.	3,11,094	...		Exports.	90,066	...

to 391½ lakhs, giving a total of 867 lakhs or 67·6 per cent. of the total foreign trade of the Presidency. The principal articles of export are hides and skins, raw cotton, coffee, unrefined sugar, indigo, coir yarn and rope, spices, oils, rice and Peruvian (cinchona) bark. The principal articles of import are cotton piece-goods, cotton twist and yarn, metal, liquors, machinery, apparel, railway materials and coal. With Austria the import trade is of no importance, but there are generally considerable exports of dressed skins, raw cotton and indigo to that country. France supplies this Presidency with apparel and liquors and takes seeds (gingelly and castor), coffee, cotton and spices. Italy takes raw cotton and indigo and supplies coral. The import trade of Germany is not very important and is confined to the supply of liquors. The principal articles of export to this country are cocoanut oil, indigo, coir and cotton. Spain takes a large quantity of raw cotton. The trade with Mauritius and Bourbon consists of exports of gram, rice, oils, ghee and tobacco. The value of the trade with Egypt was insignificant up to 1876-77. In that year it amounted to 16 lakhs and in the succeeding five years it averaged nearly 26 lakhs. In 1882-83 the exports increased to 43½ lakhs, of which indigo contributed 36¼ lakhs and unrefined sugar 6¾ lakhs. The import trade is very insignificant. The trade with United States rose at a bound in 1879-80 from 4 lakhs to 24½ lakhs. It has steadily increased ever since and in 1882-83 has risen to 39½ lakhs. The chief articles of export are hides and skins, indigo and coir. Of the countries in Asia trade is carried on principally with Ceylon, China, Japan, Persia, the Straits Settlements and Turkey. Grain and pulse, cotton piece-goods, provisions, cattle, oil-cakes, spices, sugar and seeds are the principal exports to Ceylon, and the imports from that country consist chiefly of betel nuts and cotton piece-goods. With China and Japan the import trade is insignificant and exports consist chiefly of cotton. Indigo is exported to Persia. From the Straits Settlements betel nuts, metals, and cotton white piece-goods are imported, and the exports to these places are animals, cotton piece-goods, dressed skins, seeds, tobacco leaf and ghee. Turkey in Asia supplies fruits and takes coffee, indigo and spices. The exports to the Australian continent consist chiefly of coffee and tea, and the principal imports are coal and horses. As regards the interprovincial trade the principal imports from Bengal are rice, cotton twist and yarn, raw silk, gunny bags, metals, paddy, and other grains, and the principal exports are seeds, hides and skins, spices and sugar. Bombay procures from this Presidency spices, timber and wood, coppray, oils, cocoanuts, coffee, raw cotton, coir yarn and rope and sugar, and supplies cotton twist, cotton piece-goods, metals, grain and pulse and salt. Burmah usually takes tobacco, oils, cotton piece-goods and ghee and supplies timber. The principal shipments to Travancore are coir yarn and rope and cocoanut oil, and the imports consist mainly of timber and wood. The exports to Cutch are "other timber," cocoanuts, unrefined sugar, coir yarn and rope and teak. The import trade with this country consists chiefly of grain and pulse. The chief

Countries.		Merchandise.	Treasure.	Countries.		Merchandise.	Treasure.
		RS.	RS.			RS.	RS.
Straits Settlements.	Imports.	9,97,140	787	British Burmah ...	Imports.	13,79,299	...
	Exports.	18,83,072	1,501		Exports.	30,28,790	16,000
Turkey in Asia ...	Imports.	67,458	6,144	Scinde	Imports.	14,312	...
	Exports.	4,32,770	...		Exports.	1,68,184	...
Other countries in Asia.	Imports.	3,18,538	...	British ports within the Presidency.	Imports.	1,22,75,491	33,16,538
	Exports.	29,490	...		Exports.	1,29,20,183	27,82,832
New South Wales ...	Imports.	1,23,902	...	Pondicherry ...	Imports.	67,359	26,240
	Exports.	9,249	...		Exports.	1,24,341	...
Victoria	Imports.	3,34,727	62,505	Travancore ...	Imports.	67,293	...
	Exports.	39,671	...		Exports.	7,24,714	10,000
Other countries in Australia.	Imports.	46,960	...	Other Indian ports.	Imports.	1,47,641	1,48,374
	Exports.	5,842	...		Exports.	12,60,592	925
Total Foreign ...	Imports.	4,58,33,679	34,55,882	Total Coasting ...	Imports.	3,63,05,183	37,15,229
	Exports.	8,23,96,242	14,28,641		Exports.	3,62,96,772	28,45,808
Bengal	Imports.	1,10,43,757	...				
	Exports.	60,92,782	28,500				
Bombay	Imports.	1,13,10,031	2,24,077	Grand Total ...	Imports.	8,21,38,862	71,71,111
	Exports.	1,19,77,186	7,551		Exports.	11,86,93,014	42,74,449

articles exported to Goa are rice and paddy and the imports therefrom consist chiefly of salt and provisions.

445. CUSTOMS REVENUE.—The total gross Customs revenue during 1882-83 amounted to: duty on imports, Rupees 5,73,183; duty on exports, Rupees 3,73,183 —total Rupees 9,46,366. Deducting refunds and drawbacks in this year to the amount of Rupees 17,854, the net revenue was Rupees 9,28,512, of which Rupees 5,56,113 appertained to imports and the remainder to exports. The subjoined statement [5] shows the Customs revenue during a recent twenty-eight years. The figures included duty on salt, which is shown under salt revenue in the finance accounts. The fluctuations are in most cases referable to changes in the tariff. Prior to 1859 different rates of duty obtained in different Presidencies, and Act VII of 1859 prescribed for the first time a uniform tariff for the whole of India. The tariff duties originally fixed were very high, often amounting to as much as 20 per cent. on the value, but subsequently there have been several reductions, and in 1882 the duty on all articles of import except arms and ammunition, liquor, opium and salt, and on all articles of export except paddy and rice, was abolished. The next comparative statement [6] shows the Customs revenue derived from the principal articles of import and export during 1882-83. The next statement [7] shows the share of each district in the gross amount of Customs collections on imports and exports.

[5] CUSTOMS REVENUE.

Years.	Imports.	Exports.	Total.	Years.	Imports.	Exports.	Total.
	RS.	RS.	RS.		RS.	RS.	RS.
1855-56	6,47,704	5,42,268	11,89,972	1869-70	16,60,771	9,04,307	25,65,078
1856-57	2,18,443	5,34,044	12,52,487	1870-71	17,92,481	10,36,887	28,29,368
1857-58	6,34,817	5,97,599	12,32,416	1871-72	16,28,064	12,86,623	29,14,687
1858-59	8,82,162	4,29,528	13,11,690	1872-73	16,76,300	10,93,188	27,69,488
1859-60	16,01,718	7,13,032	23,14,750	1873-74	17,90,543	13,68,595	31,59,138
1860-61	17,22,730	8,56,733	25,79,463	1874-75	17,21,233	12,32,260	29,53,493
1861-62	13,58,719	7,12,471	20,71,190	1875-76	19,04,369	9,75,128	28,79,497
1862-63	10,91,820	6,79,258	17,71,078	1876-77	19,24,422	5,38,494	24,62,916
1863-64	12,75,208	7,19,705	19,94,913	1877-78	18,64,112	2,53,895	21,18,007
1864-65	11,17,875	6,67,552	17,85,427	1878-79	19,46,922	4,63,543	24,10,465
1865-66	12,19,300	7,01,207	19,20,507	1879-80	16,19,592	7,07,177	23,26,769
1866-67	12,77,508	5,22,978	18,00,486	1880-81	17,11,238	7,17,625	24,28,863
1867-68	14,78,349	8,59,979	23,38,328	1881-82	14,37,149	4,49,184	18,86,333
1868-69	15,87,846	9,98,574	25,86,420	1882-83	5,73,183	3,73,183	9,46,366

[6] CUSTOMS REVENUE BY ARTICLES.

Articles.	Exports.	Articles.	Imports.
	RS.		RS.
Rice not in the husk	3,40,052	Spirits	3,84,036
Rice in the husk (paddy)	33,108	Wines and liquors	87,095
Spices (pepper)	23	Salt	32,820
		Liquors—Ale, beer, and porter ...	10,593
		Opium imported from foreign countries	40
		Arms, &c.	16,244
		Liquors, other sorts	41,832
		All other articles	523
Total ...	3,73,183	Total ...	5,73,183

[7] CUSTOMS REVENUE BY DISTRICTS.

Districts.	Import duty.	Export duty.	Districts.	Import duty.	Export duty.
	RS.	RS.		RS.	RS.
Fort St. George	4,95,722	484	Tanjore	224	2,52,962
Ganjam	1,263	69,237	Madura	57	1,537
Vizagapatam	2,852	...	Tinnevelly	616	7,642
Godavery	4,837	20,268	South Canara	20,653	3,933
Kistna	196	4,443	Malabar	46,763	281
Nellore	...	...			
South Arcot	...	12,396	Total ...	5,73,183	3,73,183

446. SHIPPING, FOREIGN TRADE.—The total number and tonnage of vessels which entered and cleared at all ports in this Presidency from and to ports beyond its limits with cargoes and in ballast for the thirteen years ending 1882-83 are shown below.[8] The figures show also that vessels of larger size are now being employed in the trade. The number of steamers for thirteen years down to 1882-83 has been as at foot.[9] The increase in the number of steamers has been rapid and satisfactory. The share of each district in the movements of shipping from and to foreign countries during 1882-83 were as at foot.[10] The nationalities of the shipping engaged in the trade with foreign countries are shown for 1882-83 in the subjoined statement at foot.[11] The details of foreign vessels for the same year under their respective nationalities are as shown at foot.[12]

[8] SHIPPING, FOREIGN TRADE.

Years.	Vessels.	Tons.	Years.	Vessels.	Tons.
1870-71	6,874	956,492	1877-78	6,710	1,113,501
1871-72	7,224	1,056,621	1878-79	6,356	1,120,529
1872-73	7,135	1,071,552	1879-80	6,529	1,113,042
1873-74	7,622	1,118,699	1880-81	6,247	1,177,337
1874-75	7,396	1,218,402	1881-82	5,939	1,212,114
1875-76	6,866	1,208,745	1882-83	5,272	1,161,328
1876-77	7,244	1,248,965			

[9] NUMBER OF STEAMERS.

Years.	Steamers.	Tons.	Years.	Steamers.	Tons.
1870-71	145	171,144	1877-78	247	349,904
1871-72	168	193,737	1878-79	237	339,259
1872-73	213	263,268	1879-80	258	364,613
1873-74	204	270,024	1880-81	295	424,453
1874-75	207	300,755	1881-82	382	536,850
1875-76	260	355,066	1882-83	465	607,983
1876-77	288	369,550			

[10] SHIPPING, FOREIGN TRADE BY DISTRICTS.

Districts.		Vessels.	Tons.	Districts.		Vessels.	Tons.
Madras ...	Entered ...	208	258,798	Tanjore	Entered ...	865	98,729
	Cleared ...	151	188,959		Cleared ...	906	110,101
Ganjam ...	Entered ...	140	183,416	Madura	Entered ...	789	91,110
	Cleared ...	20	17,177		Cleared ...	753	78,759
Vizagapatam ...	Entered ...	7	8,238	Tinnevelly ...	Entered ...	539	58,815
	Cleared ...	26	21,665		Cleared ...	544	57,889
Godavery ...	Entered ...	46	36,025	South Canara ...	Entered ...	18	2,099
	Cleared ...	67	39,392		Cleared ...	8	820
Kistna ...	Entered ...	8	3,585	Malabar	Entered ...	60	25,566
	Cleared ...	10	880		Cleared ...	64	32,843
Nellore ...	Entered ...	3	3,573				
	Cleared ...	...	...	Total ...	Entered ...	2,629	604,712
South Arcot ...	Entered ...	76	10,054		Cleared ...	2,643	556,616
	Cleared ...	94	8,131				

[11] NATIONALITIES OF SHIPPING.

—		Sailing vessels.		Steamers.		—		Sailing vessels.		Steamers.	
		Vessels.	Tons.	Vessels.	Tons.			Vessels.	Tons.	Vessels.	Tons.
British...	Entered...	95	74,798	227	296,497	Native craft.	Entered...	1,035	44,099	...	...
	Cleared...	95	58,130	197	267,137		Cleared...	1,136	46,456	...	...
Foreign.	Entered...	14	3,812	16	21,274						
	Cleared...	30	12,242	17	21,027	Total	Entered...	2,381	285,661	248	319,051
British India.	Entered...	1,237	162,952	5	1,280		Cleared...	2,426	267,684	217	288,932
	Cleared...	1,165	150,856	3	768						

[12] FOREIGN VESSELS.

—	Entered.		Cleared.		—	Entered.		Cleared.	
	Vessels.	Tons.	Vessels.	Tons.		Vessels.	Tons.	Vessels.	Tons.
American	1	591	1	591	German	2	465	2	465
Arabian	6	183	2	235	Italian	...	...	1	446
Australian	1	1,814	2	904					
French	20	22,033	39	30,628	Total ...	30	25,086	47	33,269

(b) *Sea-going Trade—External.*

447. Amount of External Trade.—The statement at foot [13] shows the value of exports and imports in this Presidency for a recent series of twenty-eight years at all ports, excluding interportal trade.

448. Exports and Imports under external trade compared.—The statement at foot [14] shows the total exports and imports inclusive of Government stores and treasure from and to this Presidency but exclusive of interportal trade within the

[13] Amount of External Trade.

Years.	Value of imports.			Value of exports.			Value of re-exports.
	Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total.	Merchandise.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1855-56	2,31,33,876	1,37,16,696	3,68,50,572	2,91,70,905	44,18,750	3,35,89,655	6,64,364
1856-57	2,35,25,244	1,70,38,582	4,05,63,826	3,67,26,978	33,33,678	4,00,60,656	7,78,134
1857-58	2,46,85,453	1,86,23,162	4,33,08,615	4,03,65,161	1,17,00,866	5,20,66,027	9,10,155
1858-59	2,93,08,408	1,42,96,207	4,36,04,615	3,37,99,807	57,28,536	3,95,28,343	17,16,376
1859-60	2,99,07,033	1,74,39,684	4,73,46,717	3,87,82,800	45,47,547	4,33,30,347	12,56,494
1860-61	2,16,55,812	2,07,25,887	5,23,81,699	4,45,98,338	62,88,632	5,08,86,970	15,07,146
1861-62	3,44,94,149	2,22,85,900	5,67,80,049	5,42,92,250	39,58,486	5,82,50,736	11,60,099
1862-63	3,03,30,148	3,03,86,890	6,07,17,038	6,35,58,990	61,90,551	6,97,49,541	11,96,496
1863-64	4,02,65,473	3,60,75,985	7,63,41,458	8,77,78,126	2,23,39,284	11,01,17,410	17,35,648
1864-65	4,18,02,487	3,03,13,958	7,21,16,445	8,36,71,790	1,81,50,942	10,18,22,732	10,04,383
1865-66	4,79,87,412	3,66,42,492	8,46,29,904	9,00,15,155	1,26,10,223	10,26,25,378	14,61,719
1866-67	4,16,74,201	1,36,86,606	5,53,60,807	4,45,86,571	1,75,29,881	6,21,16,452	4,86,237
1867-68	5,08,27,573	1,12,93,529	6,21,21,102	5,80,09,230	1,01,55,634	6,81,64,864	4,39,318
1868-69	5,14,00,610	2,25,60,091	7,39,60,701	7,67,50,999	36,81,960	8,04,32,959	14,45,965
1869-70	5,11,84,481	1,76,42,023	6,88,26,504	7,32,45,315	62,22,657	7,94,67,972	18,65,985
1870-71	5,49,93,170	82,68,321	6,32,61,491	6,24,26,649	1,72,12,961	7,96,39,610	26,75,979
1871-72	5,04,11,411	1,04,92,486	6,09,03,897	8,79,57,788	68,99,824	9,48,57,612	21,72,662
1872-73	5,29,04,294	1,19,42,830	6,48,47,124	7,92,95,348	69,92,958	8,62,88,306	20,81,746
1873-74	5,46,45,249	84,69,288	6,31,14,537	8,26,86,748	1,84,09,184	10,10,95,932	25,58,661
1874-75	5,65,69,225	96,01,625	6,61,70,850	8,40,14,342	97,59,965	9,37,74,307	28,04,065
1875-76* ...	6,42,27,053	95,62,079	7,37,89,132	8,88,33,445	43,71,537	9,32,04,082	16,74,217
	1,72,59,681	24,09,141	1,96,68,822	1,18,37,969	29,91,753	1,48,29,722	45,34,303
1876-77* ...	9,91,29,831	1,27,87,908	11,19,17,739	8,39,63,740	96,58,120	9,36,21,860	16,60,433
	3,02,01,416	59,70,693	3,61,72,109	2,29,30,199	66,04,278	2,95,34,477	37,19,900
1877-78* ...	13,21,48,323	46,15,135	13,67,63,458	7,36,41,641	1,63,37,961	8,99,79,602	16,75,734
	3,18,28,540	63,89,567	3,82,18,107	2,36,29,832	68,49,246	3,04,79,078	37,94,550
1878-79* ...	7,32,34,002	37,95,744	7,70,29,746	8,12,62,574	1,25,11,787	9,37,74,361	14,86,165
	1,44,36,706	22,14,658	1,66,51,364	1,14,64,600	26,10,666	1,40,75,266	29,53,969
1879-80* ...	6,06,35,673	47,66,362	6,54,02,035	9,69,13,402	67,23,219	10,36,36,621	16,01,423
	1,28,26,109	30,07,335	1,58,33,444	1,07,30,350	33,17,680	1,40,48,030	25,74,533
1880-81* ...	6,61,82,391	49,31,616	7,11,14,007	9,41,53,730	57,21,005	9,98,74,735	15,30,919
	1,30,63,586	52,56,717	1,83,20,303	1,04,00,275	55,96,886	1,59,97,161	28,58,907
1881-82* ...	6,59,21,074	37,98,343	6,97,19,417	9,91,85,627	97,60,812	10,89,46,439	11,88,704
	1,06,59,569	29,69,199	1,36,28,768	90,42,681	30,80,843	1,21,23,524	20,81,402
1882-83* ...	7,24,40,208	38,54,573	7,62,94,781	10,52,45,024	48,52,962	11,00,97,986	9,63,672
	1,26,75,054	45,36,538	1,72,11,592	1,04,69,418	47,52,832	1,52,22,250	29,91,988

* Upper figures are exclusive of British ports within the Presidency. Lower figures are those of British ports within the Presidency.

[14] Exports and Imports under external trade compared.

Years.	Exports.	Imports.	Excess or deficiency of exports or imports as compared.	Years.	Exports.	Imports.	Excess or deficiency of exports or imports as compared.
	RS.	RS.	RS.		RS.	RS.	RS.
1855-56 ...	3,42,54,019	3,68,50,572	− 25,96,553	1869-70 ...	8,13,33,957	6,88,26,504	+ 1,25,07,453
1856-57 ...	4,08,38,790	4,05,63,826	+ 2,74,964	1870-71 ...	8,23,15,589	6,32,61,491	+ 1,90,54,098
1857-58 ...	5,29,76,182	4,33,08,615	+ 96,67,567	1871-72 ...	9,70,30,374	6,09,04,976	+ 3,61,25,398
1858-59 ...	4,12,44,719	4,36,04,615	− 23,59,896	1872-73 ...	8,83,70,152	6,48,48,854	+ 2,35,21,298
1859-60 ...	4,45,86,841	4,73,46,717	− 27,59,876	1873-74 ...	10,36,54,593	6,31,16,409	+ 4,05,38,184
1860-61 ...	5,23,94,116	5,23,81,699	+ 12,417	1874-75 ...	9,65,78,372	6,61,72,350	+ 3,04,06,022
1861-62 ...	5,94,10,835	5,67,80,049	+ 26,30,786	1875-76 ...	9,48,79,199	7,37,89,132	+ 2,10,90,067
1862-63 ...	7,09,46,037	6,07,17,038	+ 1,02,28,999	1876-77 ...	9,52,82,293	11,19,17,739	− 1,66,35,446
1863-64 ...	11,18,53,058	7,63,41,458	+ 3,15,11,600	1877-78 ...	9,16,55,336	13,67,63,458	− 4,51,08,122
1864-65 ...	10,28,27,115	7,21,16,445	+ 3,07,10,670	1878-79 ...	9,44,60,526	7,70,29,746	+ 1,74,30,780
1865-66 ...	10,40,87,097	8,46,29,904	+ 1,94,57,193	1879-80 ...	10,52,38,044	6,54,02,035	+ 3,98,36,009
1866-67 ...	6,26,02,689	5,53,60,807	+ 72,41,882	1880-81 ...	10,14,05,654	7,11,14,007	+ 3,02,91,647
1867-68 ...	6,86,04,182	6,21,21,102	+ 64,83,080	1881-82 ...	11,01,35,143	6,97,19,417	+ 4,04,15,726
1868-69 ...	8,18,78,924	7,39,60,701	+ 79,18,223	1882-83 ...	11,10,61,658	7,62,94,781	+ 3,47,66,877

Presidency, during twenty-eight recent years and the excess or deficiency of the former as compared with the latter. As there is a large traffic by railway and by land with other Presidencies and Native States (for which no statistics are available), the excess does not represent the absolute balance of trade against the Presidency.

449. COMPARISON OF DIFFERENT ARTICLES UNDER THE SAME.—The statement at foot [15] showing the detailed imports and exports for 1882-83 is useful as indicating the proportion existing between their value.

450. EXPORT ARTICLES UNDER EXTERNAL TRADE.—Of the total exports under external trade about 77·9 per cent. goes to foreign countries, about 2 per cent. to foreign ports in India, and about 20·1 per cent. to ports in other Presidencies. The articles of export consist chiefly of unmanufactured goods being the products of the country. The only articles at present liable to duty on export to foreign places are rice and paddy, all the rest are free. No duty is charged on exports to British ports within India. The list at foot [16] shows the detailed exports for

[15] COMPARISON OF DIFFERENT ARTICLES.

Imports.	Exclusive of British ports within the Presidency.	Exports.	Exclusive of British ports within the Presidency.
	RS.		RS.
Cotton piece-goods	2,01,66,913	Hides and skins	1,93,34,096
Twist and yarn	1,49,58,006	Cotton, raw	1,64,84,093
Grain and pulse	73,54,864	Coffee	1,34,94,673
Metals	42,80,498	Indigo	77,83,057
Liquors	21,01,029	Sugar	75,68,940
Apparel	17,13,495	Seeds	64,98,608
Timber and wood	11,51,833	Spices	53,69,012
Railway materials	7,90,181	Rice	44,81,697
All other articles	1,73,46,552	Paddy	2,92,629
		Other grains	4,03,440
		Cotton piece-goods	33,12,498
		Oils	31,39,465
		Cocoanut kernel	14,82,949
		Cocoanuts	11,98,464
		Coir yarn and rope	24,17,192
		Timber and wood	17,86,059
		Tobacco	13,84,135
		Animals, living	7,64,159
		Tea	3,29,057
		All other articles	74,86,926
Total ...	6,98,63,371	Total ...	10,50,11,149
£ ...	69,86,337	£ ...	1,05,01,114
Include Government stores ...	25,76,837	Include Government stores ...	4,35,865

[16] ARTICLES OF EXPORT UNDER EXTERNAL TRADE.

—		Quantity.	Value.	—		Quantity.	Value.
			RS.				RS.
Hides and skins ...	Cwts.	213,068	1,93,34,096	Cocoanut kernel ...	Cwts.	146,176	14,82,949
Cotton, raw	„	656,907	1,64,84,093	Cocoanuts	No.	49,270,785	11,98,464
Coffee	„	337,511	1,34,94,673	Coir yarn and rope ...	Cwts.	322,799	24,17,192
Indigo	„	33,944	77,83,057	Timber and wood ...	Val.	...	17,86,059
Sugar	„	1,246,954	75,68,940	Tobacco	Lb.	7,045,569	13,84,135
Seeds	„	1,404,977	64,98,608	Animals, living... ...	No.	86,740	7,64,159
Spices	Lb.	32,383,920	53,69,012	Tea	Lb.	309,548	3,29,057
Rice	Cwts.	1,517,458	44,81,697	All other articles ...	Val.	...	74,86,926
Paddy	„	162,337	2,92,629				
Other grains	„	157,257	4,03,440	Total Merchandise ...		...	10,50,11,149
Cotton piece-goods ...	Yds. No.	8,310,419 1,072,252	33,12,498	Value of re-exports		...	7,61,682
Oils	Gals.	2,902,077	31,39,465	Total ...		...	10,57,72,831

the year 1882-83, and the next table [17] shows the average value of the exports for the last twelve years.

451. The figures for hides and skins are shown below.[18] The trade in this article has shown a very steady and progressive increase during the last twenty-eight years, and the exports have risen from 7½ to more than 193 lakhs in value. It stands the first now in the article of exports. The figures include the quantities and values of both raw and tanned hides and skins. The duty of 3 per cent. on the latter was repealed by the Tariff Act of 1875. This commodity is exported chiefly from Madras, and the direction of the traffic in the year 1882-83 is shown in the subjoined table.[19] The exports to the United Kingdom, Austria, and Bengal have largely increased, the expansion of trade in this article being due to the abolition of the duty levied thereon up to August 1875.

452. The value of the trade in raw cotton twenty-eight years ago was 25 lakhs of rupees, since which time it has increased, though with considerable fluctuations, to over six times that sum, the average of the five years ending 1882-83 being 119 lakhs. During the interval between 1855-56 and 1860-61 the

[17] STATEMENT SHOWING THE AVERAGE VALUE IN RUPEES OF TRADE UNDER THE PRINCIPAL ARTICLES OF EXPORT FOR TWELVE YEARS.

—	Coffee.	Cotton, raw.	Rice and paddy.	Other grains.	Indigo.	Seeds.	Oils.	Spices.	Coir yarn and rope.	Sugar.	Cocoanuts.	Cocoanut kernel.	Tobacco.	Tea.	Hides and skins.	Cotton piece-goods.	Timber and wood.	Animals, living.
Average of 1871-72 to 1882-83 (excluding the famine years 1876-77, 1877-78 and 1878-79) ...	142	143	94	4	83	61	40	39	19	33	13	19	9	2	105	27	12	7
Average of 1871-72 to 1882-83	143	127	87	4	75	55	39	38	21	30	13	19	9	2	112	28	12	8

Note.—In the averages given above the last five figures are omitted in each case. The bottom line will show the disturbance caused by the late famine.

[18] QUANTITY AND VALUE OF HIDE AND SKIN EXPORT.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	NO.	RS.		NO.	RS.
1855-56	2,522,864	7,53,989	1869-70	6,559,800	36,49,227
1856-57	3,412,211	13,87,833	1870-71	7,120,698	40,93,295
1857-58	4,276,471	22,01,996	1871-72	8,360,650	47,25,679
1858-59	4,656,919	17,65,193	1872-73	10,840,724	66,67,323
1859-60	4,283,010	15,51,695	1873-74	9,524,822	61,97,039
1860-61	3,868,578	16,53,782	1874-75	7,981,240	56,26,796
1861-62	3,108,033	13,68,639	1875-76	9,909,816	1,08,15,853
1862-63	4,200,424	18,85,682	1876-77	11,316,645	1,29,46,862
1863-64	4,469,832	20,62,978	1877-78	12,044,866	1,57,42,040
1864-65	4,278,270	19,39,439	1878-79	10,109,223	1,10,30,019
1865-66	4,443,307	19,81,080	1879-80	10,958,196	1,16,29,078
1866-67 *	4,869,631	23,59,471	1880-81	11,665,804	1,37,58,356
1867-68	5,158,688	28,98,739	1881-82	13,533,435	1,62,40,185
1868-69	5,925,809	31,74,219	1882-83	14,633,079	1,93,34,096

[19] COUNTRIES TO WHICH HIDE AND SKIN EXPORTED.

Countries.	Number.	Value.	Countries.	Number.	Value.
Foreign.		RS.	*Interprovincial Trade.*		RS.
United Kingdom	9,242,013	1,36,59,999	Bengal	496,138	7,48,573
Straits Settlements	351,337	1,52,930	British Burmah	70,553	41,208
Austria	1,043,130	14,13,889	Bombay	26,136	52,696
United States	3,369,160	32,17,687			
Ceylon	6,492	2,808			
Italy	2,900	8,675			
Other countries	24,100	33,241			
Total ...	14,039,132	1,84,89,229	Total ...	592,827	8,42,477
Indian ports not British ...	1,120	2,390	Grand Total ...	14,633,079	1,93,34,096

* Eleven months.

price of cotton ranged between two and two-and-a-half annas per pound. In 1861-62 it was a little over three annas, the quantity exported being $8\frac{3}{4}$ millions of pounds and the declared value upwards of 170 lakhs. In 1862-63 the quantity exported fell by nearly 28 per cent. owing to the transfer of North Canara and with it the trade of the important cotton-exporting port of Campta to the Bombay Presidency; but, in consequence of the American war and the unprecedented demand for Indian cotton in the English market which arose thereupon, the price nearly doubled, and the value of the exports rose by upwards of 40 per cent. The price of cotton and together with it the value of exports were steadily maintained in the years 1863-64, 1864-65, and 1865-66 during the continuance of the American war, and in the last-named year the exports reached 120 millions of pounds, the highest figure recorded for this Presidency. With the cessation of the American war, and as a consequence of the excessive demand for Indian cotton in the Manchester market, the exports fell at once in 1866-67 (eleven months) to less than $24\frac{1}{2}$ millions of pounds. In 1867-68 the exports more than doubled, and in 1868-69 quadrupled. From that year down to 1875-76 they have been fluctuating between 40 and 80 millions of pounds in quantity and 100 and 200 lakhs of rupees in value, but in 1877-78 owing to the severe effects of the famine the exports fell to a little over 17 millions of pounds, valued at 35 lakhs of rupees. Within the last few years however the trade has been rapidly recovering and the exports in 1882-83 amounted to over $73\frac{1}{2}$ millions of pounds, valued at nearly 165 lakhs of rupees. The principal cotton-producing districts are Anantapore, Bellary, Tinnevelly, Kistna, Kurnool, Coimbatore, Madura, and Cuddapah. On the whole, the area of cultivation ranges between $1\frac{1}{2}$ to $1\frac{3}{4}$ millions of acres in this Presidency. It can be increased to any extent, but at present there is not much inducement for extension, as the cotton produced is of inferior quality and cannot compete with American cotton or even Egyptian cotton in Europe. A very large portion of the cotton produced is consumed in the country, and there are large exports to Mysore and Bombay. The principal ports from which cotton is exported are Tuticorin, Fort St. George, and Cocanada. The quantity and value of exports of cotton wool during the last twenty-eight recent years have been as below.[20] The statement at foot [21] shows the quantity and value of this article exported to the several countries during the year 1882-83.

453. The cultivation of coffee is comparatively of recent origin, but it has developed with great rapidity. It took the first place in 1875-76 which it retained

[20] QUANTITY AND VALUE OF COTTON WOOL EXPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	LB.	RS.		LB.	RS.
1855-56	21,013,464	25,21,351	1869-70	68,513,748	1,91,25,050
1856-57	53,988,065	72,22,286	1870-71	42,347,132	1,06,04,132
1857-58	55,015,309	87,71,724	1871-72	75,329,127	1,72,05,095
1858-59	38,652,542	61,17,902	1872-73	67,905,380	1,58,76,737
1859-60	62,512,527	95,97,135	1873-74	61,522,169	1,28,33,988
1860-61	78,822,027	1,12,91,211	1874-75	80,388,584	1,62,68,783
1861-62	87,544,471	1,70,40,215	1875-76	82,143,068	1,65,28,491
1862-63	62,374,133	2,38,12,882	1876-77	53,879,952	1,07,40,374
1863-64	72,490,886	4,47,18,112	1877-78	17,158,512	35,05,294
1864-65	73,101,578	4,04,18,937	1878-79	45,882,592	99,79,360
1865-66	120,034,215	4,84,16,348	1879-80	56,790,608	1,32,33,941
1866-67	24,367,350	94,37,365	1880-81	44,256,128	1,02,46,839
1867-68	49,286,131	1,23,65,500	1881-82	45,139,136	97,77,605
1868-69	94,030,728	2,13,99,830	1882-83	73,573,584	1,64,84,093

[21] QUANTITY AND VALUE OF COTTON WOOL EXPORTS FOR AN AVERAGE YEAR.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign Countries.	LB.	RS.		LB.	RS.
United Kingdom	46,377,072	1,03,53,962	Foreign ports in India ...	47,600	9,144
Austria	4,052,496	9,30,137	Bengal		
France	8,166,928	17,35,616	Bombay	662,032	1,47,247
Germany	179,984	42,480		3,533,376	8,05,509
Italy	5,194,448	12,14,105			
Spain	1,695,376	11,00,005			
Other countries	664,272	1,45,888	Total ...	4,195,408	9,52,756
Total ...	69,330,576	1,55,22,193	Grand Total ...	73,573,584	1,64,84,093

in the following year, but lost it during the famine of 1877-78. Between 1878-79 and 1880-81 it again occupied the first place, but in 1881-82 it fell to the second place and in 1882-83 to the third place. In 1855-56 the exports amounted to about 8½ millions of pounds, and with the exception of 1857-58 they steadily increased to nearly 14½ millions of pounds by 1859-60, and when in 1859 the export duty of 3 per cent. which had previously been levied was abolished, the export rose in 1860-61 to about 18½ millions of pounds. From this point the trade increased with still greater rapidity till in the year 1865-66 it amounted to upwards of 34 millions of pounds. Owing probably to the re-imposition of the 3 per cent. duty, which however only continued in force for three months, the exports in 1866-67 (which consisted of eleven months only) fell to 17 millions of pounds. In the following year however they again rose to 35½ millions of pounds, and in 1868-69 to 47 millions. In the next two years there was a decline, but in 1871-72 the trade suddenly revived, nearly 57 millions of pounds were exported. During the eleven years ending 1882-83 they have averaged 38 millions of pounds, the highest figure reached being that in 1875-76, viz., 42½ millions of pounds. The value of coffee has also steadily increased, and this has given an impetus to the cultivation. In 1855-56 the price as deduced from the declared value was Rupees 11½ per cwt., while in 1871-72, in which year the largest quantity was exported, the average price was Rupees 27¼ per cwt.; it has since nearly doubled, the average for 1876-77 being Rupees 44⅓. The price stood at about Rupees 45½ per cwt. between 1877-78 and 1879-80, fell to Rupees 44 in 1880-81, to Rupees 42 in 1881-82, and to Rupees 40 in 1882-83. The decrease in value is mainly due to fall in prices in London owing to the markets being overstocked. Coffee cultivation in Southern India is carried on principally in the Wynaud, on the Neilgherries, in Mysore, Coorg, and Travancore, and latterly to some extent on the slopes of the Western Ghauts in Tinnevelly. A considerable portion of the exports of the Madras Presidency consists of coffee from Coorg and Mysore. Coffee is principally exported from the ports of Malabar, from Tuticorin and from Madras. Shown below [22] is a table for a series of years. The next statement shows [23] the countries to which coffee was exported in the year 1882-83.

[22] EXPORT OF COFFEE.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	LB.	RS.		LB.	RS.
1855-56	8,601,464	8,92,167	1869-70	37,353,359	88,21,118
1856-57	8,869,609	9,44,446	1870-71	35,484,209	82,84,862
1857-58	7,714,355	8,67,041	1871-72	56,889,888	1,38,34,164
1858-59	11,372,338	12,30,803	1872-73	41,548,950	1,12,76,512
1859-60	14,578,228	18,75,054	1873-74	41,479,712	1,51,94,418
1860-61	18,571,414	32,41,699	1874-75	36,652,965	1,36,13,647
1861-62	20,960,198	47,10,369	1875-76	42,691,712	1,66,11,109
1862-63	20,269,004	53,55,581	1876-77	36,165,920	1,43,32,608
1863-64	27,333,127	65,55,671	1877-78	33,399,296	1,35,56,428
1864-65	31,424,319	76,84,938	1878-79	38,467,408	1,56,01,948
1865-66	34,527,695	78,13,813	1879-80	37,831,248	1,52,72,629
1866-67	17,374,766	41,91,785	1880-81	38,844,960	1,51,97,350
1867-68	35,659,638	80,58,373	1881-82	36,166,816	1,35,66,198
1868-69	47,411,508	1,07,65,221	1882-83	37,801,232	1,34,94,673

[23] COUNTRIES TO WHICH COFFEE EXPORTED.

Countries to which exported.	Quantity.	Value.	Countries to which exported.	Quantity.	Value.
Foreign Trade.	LB.	RS.		LB.	RS.
United Kingdom	23,244,480	93,45,610	Foreign ports in India ...	180,768	45,781
France	9,720,032	27,41,742			
Austria	142,464	52,748			
Turkey in Asia	946,288	2,41,811	Bengal	80,416	21,933
Egypt	218,176	61,105	Bombay	2,978,192	9,03,232
United States	21,952	7,830	British Burmah	672	330
Arabia	77,504	21,758	Scinde	672	125
Ceylon	34,160	6,325			
Persia	79,856	21,574			
Victoria	63,952	19,937			
Other countries	11,648	2,832	Total ...	3,059,952	9,25,620
Total ...	34,560,512	1,25,23,272	Grand Total ...	37,801,232	1,34,94,673

454. The trade in indigo is liable to very great fluctuations, being mainly dependent on the quality of the produce, which is materially affected by the nature of the season. The exports for twenty-eight recent years are shown below.[24] Indigo cultivation is chiefly carried on in Cuddapah, South Arcot, Nellore, Kistna, and Kurnool Districts, and the bulk of the exports are from Fort St. George. The statement at foot [25] shows the places to which this description of produce was exported during 1882-83.

455. The table at foot [26] shows the figures for sugar. There has been a very satisfactory increase in the exports of sugar within the past few years. The exports in 1882-83 were considerably more than double those of 1880-81 and about 37·4 per cent. more than those of 1881-82. The increase in value is not proportionately high owing to the dulness of the London market and the consequent decline in the price of unrefined sugar which formed nearly 90 per cent. of the total exports. The 3 per cent. duty on sugar exports to foreign countries was removed in 1859. It is a matter of complaint among the merchants that for the

[24] QUANTITY AND VALUE OF INDIGO EXPORT.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	LB.	RS.		LB.	RS.
1855-56	2,899,627	43,14,286	1869-70	3,076,304	75,47,745
1856-57	2,846,838	47,24,631	1870-71	3,883,572	85,31,008
1857-58	2,088,682	38,59,826	1871-72	5,204,612	1,20,82,388
1858-59	1,984,773	35,78,679	1872-73	2,985,206	69,31,400
1859-60	2,531,726	45,55,258	1873-74	4,248,524	88,28,959
1860-61	1,589,612	28,11,882	1874-75	2,791,852	57,15,508
1861-62	2,328,636	48,69,090	1875-76	2,554,832	47,31,631
1862-63	2,433,168	51,67,790	1876-77	3,127,432	56,07,120
1863-64	2,023,784	40,37,259	1877-78	1,905,792	39,28,762
1864-65	1,530,508	33,35,915	1878-79	2,939,601	59,48,898
1865-66	1,601,240	34,57,070	1879-80	4,962,944	95,27,944
1866-67 *	658,336	14,21,717	1880-81	2,839,648	62,48,402
1867-68	2,251,088	41,83,587	1881-82	5,852,784	1,25,93,727
1868-69	2,663,920	61,03,555	1882-83	3,801,728	77,83,057

[25] COUNTRIES TO WHICH INDIGO EXPORTED.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign.	LB.	RS.		LB.	RS.
United Kingdom	1,430,352	28,43,397	Indian ports not British ...	...	...
Egypt	1,751,008	36,20,398			
France	114,352	2,51,992			
Malta	26,880	51,851	*Interprovincial Trade.*		
Persia	25,760	52,155	Bengal	50,176	1,47,509
Turkey in Asia	55,328	1,10,365	Bombay	2,464	4,581
Italy	40,432	92,932	British Burmah	...	...
United States	224,336	4,39,724			
Austria	53,984	1,13,309	Total ...	52,640	1,52,090
Other countries	26,656	54,844			
Total ...	3,749,088	76,30,967	Grand Total ...	3,801,728	77,83,057

[26] QUANTITY AND VALUE OF SUGAR EXPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	CWTS.	RS.		CWTS.	RS.
1855-56	495,927	31,52,096	1869-70	241,220	16,64,903
1856-57	540,210	38,36,680	1870-71	199,901	13,74,514
1857-58	451,173	40,86,246	1871-72	333,888	20,10,438
1858-59	345,101	26,84,944	1872-73	472,512	30,24,485
1859-60	423,445	30,52,694	1873-74	223,375	11,72,886
1860-61	399,314	29,53,686	1874-75	459,617	25,01,415
1861-62	320,199	24,97,673	1875-76	397,764	19,40,827
1862-63	259,740	22,65,928	1876-77	489,742	24,51,329
1863-64	412,521	33,45,609	1877-78	408,532	27,44,939
1864-65	379,924	31,73,315	1878-79	230,265	13,85,679
1865-66	419,630	27,45,976	1879-80	316,850	18,72,143
1866-67 *	284,857	18,58,302	1880-81	541,508	32,90,946
1867-68	124,987	9,02,468	1881-82	907,461	61,35,976
1868-69	231,933	14,41,048	1882-83	1,246,954	75,68,940

* Eleven months.

protection of French trade drawbacks are granted on sugar refined in that country which from the manner in which the system is worked virtually amount to payment of a bounty to the sugar refiner and enable him to undersell the Indian sugars and beat the English refiners out of the market. Sugar is principally exported from the Northern Districts and Fort St. George. The bulk of the trade was as usual with the United Kingdom, which took 78·3 per cent., Egypt 10·6 per cent., Bombay 4·3 per cent., and Bengal 2·5 per cent. The statement at foot [27] shows the countries to which the article was exported in the year 1882-83.

456. The progress of trade under seeds is shown below.[28] Gingelly and castor seeds, from which oil is extracted, constitute the bulk of the trade. The trade has, on the whole, increased in value since 1855 from nearly 17 lakhs of rupees to nearly 50 lakhs in 1876-77 and to nearly 71 lakhs and 65 lakhs in the year 1881-82 and 1882-83 respectively. The highest figure reached was 77½ lakhs in 1879-80, but the quantities exhibit considerable fluctuations. Up to the passing of Act XVI of 1875 an export duty of 3 per cent. was levied on produce of this description, and its abolition led to a considerable increase in the exports ever since. The table at foot [29] shows the countries to which seeds were exported in the year 1882-83. France, Bengal and the United Kingdom are the principal marts.

[27] COUNTRIES TO WHICH SUGAR EXPORTED.

Countries to which exported.	Quantity.	Value.	Countries to which exported.	Quantity.	Value.
Foreign countries.	CWTS.	RS.	*Interprovincial.*	CWTS.	RS.
United Kingdom	975,828	52,50,282	Bombay	54,135	6,39,852
Ceylon	22,500	2,37,456	Bengal	31,647	1,86,197
Arabia	1,905	13,041	British Burmah	12,437	1,81,464
Egypt	132,692	6,70,359	Scinde	832	4,741
Other countries	295	2,086			
Total ...	1,133,220	61,73,224	Total ...	99,051	13,12,254
Foreign ports	14,683	83,462	Grand Total ...	1,246,954	75,68,940

[28] QUANTITY AND VALUE OF SEEDS EXPORTED.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	CWTS.	RS.		CWTS.	RS.
1855-56	612,598	16,77,941	1869-70	860,120	50,38,699
1856-57	707,906	23,85,986	1870-71	...	49,36,500
1857-58	1,238,853	29,59,560	1871-72	...	57,88,709
1858-59	624,710	25,56,507	1872-73	...	39,98,400
1859-60	356,272	14,81,558	1873-74	...	50,08,760
1860-61	520,866	22,76,749	1874-75	...	53,87,173
1861-62	668,772	27,91,666	1875-76	1,360,506	58,66,899
1862-63	893,920	37,43,963	1876-77	904,791	49,06,113
1863-64	627,312	26,64,306	1877-78	564,602	35,26,366
1864-65	722,688	27,57,548	1878-79	392,731	24,92,042
1865-66	592,281	22,68,837	1879-80	1,369,763	77,49,139
1866-67 *	104,712	4,88,966	1880-81	1,488,795	77,27,891
1867-68	639,261	34,33,046	1881-82	1,470,012	70,98,217
1868-69	1,066,796	50,66,706	1882-83	1,404,977	64,98,608

[29] COUNTRIES TO WHICH SEEDS EXPORTED.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign.	CWTS.	RS.	Foreign ports in India ...	CWTS. 1,780	RS. 3,779
France	641,181	33,37,864	*Interprovincial.*		
United Kingdom	113,972	4,89,735			
Mauritius	167	598	Bengal	557,490	23,02,069
Ceylon	36,283	1,34,459	Burmah	15,359	73,065
Straits Settlements	13,304	42,764	Bombay	11,547	54,122
Italy	13,179	55,000			
Other countries	715	5,153	Total ...	584,396	24,29,256
Total ...	818,801	40,65,573	Grand Total ...	1,404,977	64,98,608

* Eleven months.

457. The export trade in spices during the same twenty-eight years was as shown below.[30] Spices are exported chiefly from Malabar and to some extent from South Canara. The heavy duty levied on pepper in France is stated to be repressive of trade in this article and an incentive to smuggling across the Italian frontier. The countries to which this commodity was exported in the year 1882-83 were as indicated at foot.[31] Compared with 1881-82 the total exports in 1882-83 exhibit a decrease of 8·2 per cent. in quantity, but an increase of 17·9 per cent. in value. The increase in the value notwithstanding the decrease in quantity is attributed to rise in prices of pepper, betelnuts and ginger and to the increased importation of pepper which is the most valuable of all spices.

458. The value of exports of rice and paddy, the staple grains of this Presidency, for twenty-eight recent years are shown at foot.[32] The exports have fluctuated considerably, being dependent mainly on the character of the season, and represent but a small proportion of the produce of the country. The exports average 74 lakhs of rupees. In 1873-74 they reached nearly 132 lakhs owing to extensive exportations to Bengal on account of the famine. With the mitigation of famine in 1874-75 the exports fell to 115 lakhs and in 1875-76 to about 96 lakhs. The extensive failure of crops and the consequent famine in this

[30] QUANTITY AND VALUE OF SPICES EXPORTED.

Years.	Quantity in pounds and number.		Value.	Years.	Quantity in pounds and number.		Value.
	LB.	NO.	RS.		LB.	NO.	RS.
1855-56	28,994,451	2,457,200	24,17,287	1869-70	22,506,288	7,754,250	24,96,042
1856-57	20,695,303	7,703,000	19,42,113	1870-71	24,484,880	10,293,100	26,05,322
1857-58	25,280,360	7,516,250	23,53,893	1871-72	34,042,400	11,546,550	35,12,369
1858-59	23,432,489	3,362,900	19,61,085	1872-73	32,639,740	20,956,450	29,64,159
1859-60	37,883,292	8,478,100	21,82,860	1873-74	25,134,732	16,501,950	26,51,172
1860-61	26,676,997	...	29,14,563	1874-75	27,773,200	12,372,620	34,47,696
1861-62	28,515,386	...	32,58,522	1875-76	30,468,666	...	40,52,130
1862-63	22,837,953	...	22,39,341	1876-77	26,621,069	...	37,12,514
1863-64	21,914,102	...	24,05,713	1877-78	17,599,132	...	29,75,926
1864-65	22,114,172	...	25,87,936	1878-79	25,485,923	...	42,31,559
1865-66	23,548,552	...	26,23,295	1879-80	28,188,043	...	42,57,710
1866-67 *	4,553,803	4,237,162	21,49,305	1880-81	30,273,403	...	41,87,632
1867-68	22,948,576	...	26,11,877	1881-82	35,286,564	...	45,54,267
1868-69	25,131,456	10,152,400	27,92,238	1882-83	32,383,920	...	53,69,012

[31] COUNTRIES TO WHICH SPICES EXPORTED.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
	LB.	RS.	*Interprovincial.*	LB.	RS.
United Kingdom	2,642,613	7,07,156			
Ceylon	3,728,693	2,28,269			
France	6,374,061	15,80,548	Bombay	13,336,937	19,52,006
Arabia	176,913	38,198	Bengal	2,289,373	4,89,487
Straits Settlements	210,234	12,986	British Burmah	1,414,081	83,843
Mauritius	138,750	7,870	Scinde	134,352	17,471
United States	223,101	44,847			
Other countries	329,116	75,645			
			Total ...	17,174,743	25,42,807
Total ...	13,823,481	26,95,519			
			Grand Total ...	32,383,920	53,69,012
Indian ports not British	1,385,696	1,30,686			

[32] VALUE OF RICE AND PADDY EXPORTS.

Years.	Rice.		Paddy.		Total value, Paddy and Rice.	Years.	Rice.		Paddy.		Total value, Paddy and Rice.
	Quantity.	Value.	Quantity.	Value.			Quantity.	Value.	Quantity.	Value.	
	CWTS.	RS.	CWTS.	RS.	RS.		CWTS.	RS.	CWTS.	RS.	RS.
1855-56 ...	2,687,330	54,94,631	223,813	2,54,412	57,49,043	1869-70 ...	1,478,059	59,19,137	247,078	6,07,505	65,26,642
1856-57 ...	2,415,996	51,22,096	291,250	3,65,066	54,87,162	1870-71 ...	2,048,674	74,18,394	276,162	5,50,704	79,69,098
1857-58 ...	2,650,183	57,74,071	289,629	3,76,077	61,50,148	1871-72 ...	2,387,097	85,46,649	313,707	6,02,366	91,49,015
1858-59 ...	1,859,214	43,92,164	221,938	4,29,516	48,21,680	1872-73 ...	2,110,384	8,59,319	291,041	5,93,634	86,52,953
1859-60 ...	2,154,071	51,93,783	272,473	4,29,804	56,23,587	1873-74 ...	3,490,663	1,24,74,595	350,027	7,17,568	1,31,92,163
1860-61 ...	2,752,482	61,80,741	210,871	3,58,458	65,39,199	1874-75 ...	3,042,118	1,08,71,512	269,758	6,53,938	1,15,25,450
1861-62 ...	1,523,585	45,88,390	214,071	3,96,429	49,84,819	1875-76 ...	2,448,794	89,00,886	289,999	6,84,876	95,85,762
1862-63 ...	1,280,812	44,85,438	215,938	4,17,746	49,03,184	1876-77 ...	1,533,165	61,74,339	226,073	5,38,350	67,12,689
1863-64 ...	1,515,906	58,75,295	300,978	6,00,353	64,75,648	1877-78 ...	815,523	46,81,864	170,495	6,28,417	53,10,281
1864-65 ...	1,445,987	60,61,255	297,174	8,57,101	69,18,356	1878-79 ...	1,296,798	73,82,061	216,849	7,50,224	81,32,285
1865-66 ...	1,443,420	65,88,482	282,241	6,97,629	72,86,111	1879-80 ...	2,173,077	98,92,750	216,807	5,52,280	1,04,45,030
1866-67 ...	1,509,829	83,78,954	240,900	6,48,733	90,27,687	1880-81 ...	2,819,754	99,92,254	469,536	8,76,627	1,08,68,881
1867-68 ...	1,733,464	69,67,153	271,137	6,48,069	76,15,222	1881-82 ...	1,741,424	56,11,095	299,223	5,51,857	61,62,952
1868-69 ...	1,762,382	69,11,085	312,714	7,76,387	76,87,472	1882-83 ...	1,517,458	44,81,697	162,337	2,92,629	47,74,326

* Eleven months.

Presidency in 1876-77 has, as might be expected, given a still greater check to exports, which have fallen off by nearly one-third. In the year 1880-81 the exports reached more than 108 lakhs, but in 1881-82 it declined 38 per cent. in quantity and 43·3 per cent. in value and in 1882-83 there has been a further falling off of 17·7 per cent. in quantity and 22·5 per cent. in value, due to deficient harvests in Ganjam and to increased exports from Bengal and British Burmah to foreign markets which were hitherto supplied to a great extent from this Presidency. The comparative table at foot [33] shows the countries to which rice and paddy were exported in the year 1882-83. The principal countries to which rice is exported are Ceylon, the United Kingdom, Goa, Bombay, Bourbon, France and Mauritius.

459. The export trade during twenty-eight recent years in what are denominated other grains exhibits very great fluctuations as will be seen from the figures given below. [34] The export duties on these grains were abolished by the Tariff Act of 1875. The principal articles under this head are gram, pulse, wheat and other sorts. The bulk of the exports went to Mauritius, Ceylon, Bourbon, and Bengal. In the subjoined statement [35] are given the countries to which grain other than rice was exported in the year 1882-83.

[33] COUNTRIES TO WHICH RICE AND PADDY EXPORTED.

Countries.	Paddy.		Rice.		Total Value, Paddy and Rice.	Countries.	Paddy.		Rice.		Total Value, Paddy and Rice.
	Quantity.	Value.	Quantity.	Value.			Quantity.	Value.	Quantity.	Value.	
Foreign countries.	CWTS.	RS.	CWTS.	RS.	RS.	*To other Presidencies.*	CWTS.	RS.	CWTS.	RS.	RS.
Ceylon	129,557	2,25,572	1,006,750	30,16,232	32,41,804						
United Kingdom ...	...	...	264,872	6,24,804	6,24,804	Bombay	1,102	2,018	68,924	2,57,625	2,59,643
Mauritius	...	...	2,940	8,029	8,029	British Burmah ...	...	...	3,279	10,209	10,209
Bourbon	...	...	27,979	76,184	76,184	Bengal	...	...	3,488	9,302	9,302
France	...	...	5,154	12,498	12,498	Scinde	...	...	28	95	95
Arabia	...	...	3,522	15,720	15,720						
Other countries ...	16	34	7,750	23,850	23,884						
Total ...	129,573	2,25,606	1,318,967	37,77,317	40,02,923	Total ...	1,102	2,018	75,719	2,77,231	2,79,249
Foreign ports in India ...	31,662	65,005	122,772	4,27,149	4,92,154	Grand Total ...	162,337	2,92,629	1,517,458	44,81,697	47,74,326

[34] EXPORT TRADE OF OTHER GRAINS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	CWTS.	RS.		CWTS.	RS.
1855-56	103,424	2,52,190	1869-70	200,151	7,80,977
1856-57	201,357	5,03,943	1870-71	Not available.	2,75,732
1857-58	279,045	7,25,753	1871-72	Do.	3,65,541
1858-59	348,804	9,62,319	1872-73	Do.	4,26,555
1859-60	308,062	8,42,802	1873-74	Do.	3,12,502
1860-61	467,937	13,35,341	1874-75	Do.	5,36,699
1861-62	370,576	10,39,294	1875-76	136,908	4,22,221
1862-63	175,518	5,62,129	1876-77	158,704	5,39,298
1863-64	155,250	5,32,615	1877-78	123,563	5,29,164
1864-65	220,549	8,29,315	1878-79	76,564	3,64,085
1865-66	129,286	5,43,057	1879-80	93,602	3,84,847
1866-67	88,562	4,22,062	1880-81	132,757	4,30,917
1867-68	Not available.	3,54,394	1881-82	209,420	6,02,984
1868-69	46,982	1,66,514	1882-83	157,257	4,03,440

[35] COUNTRIES TO WHICH GRAIN OTHER THAN RICE EXPORTED.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign.	CWTS.	RS.	*Interprovincial.*	CWTS.	RS.
Ceylon	39,601	1,09,781			
Mauritius	63,367	1,57,884	Bombay...	2,461	7,474
Bourbon	27,070	64,888	British Burmah	301	655
Straits Settlements, ...	382	1,066	Bengal	12,304	31,190
United Kingdom	4,685	14,114	Scinde	5	25
Other countries	7	25			
Total ...	135,112	3,47,758	Total ...	15,071	39,344
Foreign ports in India ...	7,074	16,338	Grand Total ...	157,257	4,03,440

460. The exports of country-made piece-goods for the same twenty-eight years were as shown below.[36] Except during the years of the American war when there was a large demand for raw cotton in the European market, exports have been maintained pretty steadily. The manufacture of cloths has hitherto been carried on by means of hand-looms exclusively. There are at present five cotton mills at work, four at Madras and one at Bellary, where yarn and twist are made. Two of these mills, one at Madras and one at Bellary, were opened in June 1883. Very good cloth is manufactured in the districts of Ganjam, Vizagapatam, Nellore, Tanjore, and Madura, and in large quantities, the female population being dependent almost exclusively on the products of native looms. The duty has been abolished. In the statement at foot [37] are shown the countries to which cotton piece-goods were exported during the year 1882-83.

461. The value of the exports of oils, animal and vegetable, has risen in the same twenty-eight years from 6 lakhs to nearly 40 lakhs of rupees as shown

[36] QUANTITY AND VALUE OF COTTON PIECE-GOODS EXPORTED.

Years.	Denomination.	Quantities.	Value.
			RS.
1855-56 ...	Pieces ...	1,894,504	21,45,918
	Yards ...	223,140	
1856-57 ...	Pieces ...	14,226,865	20,25,299
1857-58 ...	" ...	1,300,434	20,87,224
	Yards ...	1,184	
1858-59 ...	Pieces ...	1,364,344	23,67,187
1859-60 ...	" ...	1,169,605	20,61,318
	Yards ...	92	
1860-61 ...	Pieces ...	1,021,219	18,74,689
1861-62 ...	" ...	1,132,891	20,75,600
1862-63 ...	" ...	894,956	19,86,766
1863-64 ...	" ...	679,837	16,36,131
1864-65 ...	" ...	575,787	15,60,666
1865-66 ...	" ...	762,303	20,43,953
1866-67 * ...	Yards ...	7,899,958	23,55,722
	Pieces ...	7,102	
1867-68 ...	Yards ...	12,666,449	33,68,234
1868-69 ...	" ...	8,265,757	23,00,271
1869-70 ...	" ...	5,785,362	22,18,106
	Number ...	7,331	
1870-71 ...	Yards ...	6,110,371	21,62,205
	Pieces ...	40	
	Dozens ...	548	
1871-72 ...	Yards ...	7,189,534	25,14,408
	Pieces ...	16,268	
	Pairs ...	21	
	Dozens ...	751	

Years.	Denomination.	Quantities.	Value.
			RS.
1872-73 ...	Yards ...	7,755,291	25,69,696
	Pieces ...	902	
	Dozens ...	619	
1873-74 ...	Yards ...	9,181,264	28,08,060
	Pieces ...	2,137	
	Dozens ...	495	
1874-75 ...	Yards ...	8,798,826	28,68,125
	Pieces ...	23,477	
	Dozens ...	508	
1875-76 ...	Yards ...	7,540,114	27,72,173
	Pieces ...	25,148	
	Number ...	409,050	
1876-77 ...	Yards ...	7,042,119	32,55,411
	Pieces ...	10,721	
	Number ...	1,456,516	
1877-78 ...	Yards ...	5,519,413	27,76,285
	Pieces ...	3,061	
	Number ...	1,656,595	
1878-79 ...	Yards ...	5,205,385	24,89,407
	Number ...	1,766,580	
1879-80 ...	Yards ...	5,290,095	22,22,304
	Number ...	1,194,962	
1880-81 ...	Yards ...	6,322,586	26,08,914
	Number ...	1,287,020	
1881-82 ...	Yards ...	6,859,136	29,80,167
	Number ...	1,277,332	
1882-83 ...	Yards ...	8,310,419	33,12,498
	Number ...	1,072,252	

* Eleven months.

[37] COUNTRIES TO WHICH COTTON PIECE-GOODS EXPORTED.

Countries.	Denomination.	Quantities.	Value.
Foreign.			RS.
Ceylon	Yards	4,023,421	11,99,361
	Number	345,780	98,518
Straits Settlements	Yards	2,608,288	9,59,880
	Number	39,976	20,757
United Kingdom	Yards	143,982	68,560
	Number	551,860	2,64,161
Sumatra	Yards	54,697	14,109
	Number	432	216
Aden	Yards	2,337	2,945
Other countries	"	22,878	14,024
	Number	8,882	6,740
Total ...	Yards	6,855,603	22,58,879
	Number	946,930	3,90,392
Indian ports not British ...	Yards	80,226	20,348
	Number	12	5

at foot.[38] The foreign exports consist chiefly of animal and cocoanut oils; to 'other Presidencies' cocoanut, gingelly, and essential oils are exported. The table at foot [39] shows the countries to which oils were exported during the year 1882-83.

462. The progress of trade in cocoanut shells and kernels is shown below.[40] Under quantities the numbers have reference to cocoanuts and weight to kernels. The table at foot shows [41] the countries to which cocoanuts were exported in the year 1882-83.

Countries.	Denomination.	Quantities.	Value.
Interprovincial Trade.			RS.
Bombay	Yards	395,385	2,13,259
	Number	43,522	22,888
British Burmah	Yards	931,578	3,42,264
	Number	76,029	39,343
Bengal	Yards	47,575	21,963
	Number	5,615	2,977
Scinde	Yards	52	114
	Number	144	66
Total ...	Yards	1,374,590	5,77,600
	Number	125,310	65,274
Grand Total ...	Yards	8,310,419	28,56,827
	Number	1,072,252	4,55,671

[38] QUANTITY AND VALUE OF OIL EXPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	GLS. & LB.	RS.		GLS. & LB.	RS.
1855-56	2,351,668	6,27,448	1870-71	1,918,422 24,322 lb.	27,58,376
1856-57	2,536,020	7,00,088			
1857-58	1,646,380	8,92,336	1871-72	4,193,712 23,497 ,,	55,84,816
1858-59	2,670,795	6,68,900			
1859-60	2,425,956	6,50,569	1872-73	4,016,896 28,657 ,,	54,75,569
1860-61	2,474,522	16,09,321			
1861-62	1,805,686	16,48,565	1873-74	2,328,772 30,521 ,,	32,36,786
1862-63	2,816,878	27,28,997			
1863-64	3,848,012	37,12,220	1874-75	2,755,533 38,482 ,,	32,96,080
1864-65	2,796,537	25,26,920			
1865-66	1,590,610	15,43,272	1875-76	3,126,232	34,42,041
1866-67 *	1,079,414 27,913 lb.	11,90,730	1876-77	3,930,191	39,27,358
			1877-78	2,431,315	31,25,941
1867-68	1,755,492 24,123 ,,	24,16,936	1878-79	2,721,646	38,00,527
			1879-80	3,631,230	42,89,902
1868-69	2,658,703 28,400 ,,	40,57,668	1880-81	3,769,738	40,59,480
			1881-82	3,547,405	34,70,835
1869-70	2,796,421 28,696 ,,	40,00,624	1882-83	2,902,067	31,39,465

* Eleven months.

[39] COUNTRIES TO WHICH OIL EXPORTED.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign Countries.	GLS.	RS.	*Interprovincial Trade.*	GLS.	RS.
United Kingdom	579,787	6,52,633	Bombay	945,266	11,16,410
France	69,620	79,302	British Burmah	505,271	4,71,217
Austria	72,095	80,370	Bengal	239,304	2,36,237
Italy	4,216	4,626	Scinde	645	630
Germany	183,342	1,98,151			
Ceylon	70,134	60,180			
Mauritius	33,012	31,056			
Other countries	13,867	13,519			
Total ...	1,026,073	11,19,837	Total ...	1,690,486	18,24,494
Foreign ports in India	185,508	1,95,134	Grand Total ...	2,902,067	31,39,465

463. The exports in coir yarn and rope to all countries except Germany, Austria, Italy and Portugal exhibit a decrease in 1882-83 as exhibited below.[42] The exports of this article have been steadily increasing. They have risen from $1\frac{1}{4}$ to nearly $3\frac{1}{4}$ lakhs of cwts. in quantity and from $2\frac{3}{4}$ to nearly $24\frac{1}{4}$ lakhs of rupees in

[40] COUNTRIES TO WHICH COCOANUTS EXPORTED.

Countries.	Denomination.	Quantities.	Value.	Countries.	Denomination.	Quantities.	Value.
			RS.				RS.
Foreign countries.	Number ...	37,000	1,008	Scinde	Number ...	295,700	7,313
	Cwts. ...	169	1,816		Cwts. ...	1,608	16,362
Foreign ports in India.	Number ...	4,307,295	1,16,673	British Burmah.	Number ...	242,900	4,758
	Cwts. ...	3,081	30,648		Cwts. ...	9	72
Total ...	Number ...	4,344,295	1,17,681	Bengal	Number ...	446,562	6,889
	Cwts. ...	3,250	32,464		Cwts. ...	20,103	2,43,956
Bombay ...	Number ...	43,941,328	10,61,823	Total ...	Number ...	44,926,490	10,80,783
	Cwts. ...	1,21,206	11,90,095		Cwts. ...	142,926	14,50,485
				Grand Total ...	Number ...	49,270,785	11,98,464
					Cwts. ...	146,176	14,82,949

[41] QUANTITY AND VALUE OF COCOANUT EXPORTS.

Years.	Denomination.	Quantities.	Value.	Years.	Denomination.	Quantities.	Value.
			RS.				RS.
1855-56 ...	Number ...	24,667,877	3,24,854	1869-70 ...	Number ...	42,669,692	12,04,654
	Cwts. ...	112,805	4,42,988		Cwts. ...	189,729	20,10,328
1856-57 ...	Number ...	34,803,913	4,61,961	1870-71 ...	Number ...	34,503,948	9,66,821
	Cwts. ...	110,814	4,36,772		Cwts. ...	116,228	12,51,341
1857-58 ...	Number ...	26,716,572	3,52,930	1871-72 ...	Number ...	65,502,403	16,30,861
	Cwts. ...	400,266	3,97,868		Cwts. ...	248,955	21,72,223
1858-59 ...	Number ...	27,342,940	3,60,740	1872-73 ...	Number ...	49,838,241	10,25,302
	Cwts. ...	109,053	4,32,972		Cwts. ...	269,174	19,60,932
1859-60 ...	Number ...	39,308,406	5,16,269	1873-74 ...	Number ...	45,617,578	10,46,535
	Cwts. ...	157,691	6,24,800		Cwts. ...	183,045	16,72,015
1860-61 ...	Number ...	31,478,767	5,66,425	1874-75 ...	Number ...	59,794,983	13,20,296
	Cwts. ...	213,441	13,25,194		Cwts. ...	222,252	19,27,309
1861-62 ...	Number ...	26,807,950	6,70,734	1875-76 † ...	Number ...	47,453,647	11,44,592
	Cwts. ...	267,604	23,24,297	1876-77 ...	" ...	56,015,708	13,62,865
1862-63 ...	Number ...	35,140,878	8,78,435	1877-78 ...	" ...	39,531,937	12,08,596
	Cwts. ...	308,660	27,08,402		Cwts. ...	...	...
1863-64 ...	Number ...	41,630,844	10,39,976	1878-79 ...	Number ...	45,184,830	15,30,920
	Cwts. ...	308,778	24,50,443		Cwts. ...	...	...
1864-65 ...	Number ...	41,553,541	10,39,332	1879-80 ...	Number ...	79,582,929	17,69,732
	Cwts. ...	310,784	25,57,540		Cwts. ...	...	...
1865-66 ...	Number ...	22,128,821	6,03,234	1880-81 ...	Number ...	70,862,203	14,56,316
	Cwts. ...	149,229	15,39,915		Cwts. ...	254,305	21,52,404
1866-67 * ...	Number ...	6,936,369	7,19,032	1881-82 ...	Number ...	57,075,262	11,92,821
	Cwts. ...	135,552	17,57,672		Cwts. ...	212,623	17,58,512
1867-68 ...	Number ...	Not available.	14,17,099	1882-83 ...	Number ...	49,270,785	11,98,464
	Cwts. ...		17,42,548		Cwts. ...	146,176	14,82,949
1868-69 ...	Number ...	49,917,939	12,53,812				
	Cwts. ...	215,157	21,74,195				

* Eleven months. † Particulars of kernels not available from 1875-76 to 1879-80.

[42] QUANTITY AND VALUE OF COIR YARN AND ROPE EXPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	CWTS.	RS.		CWTS.	RS.
1855-56	124,522	2,72,111	1869-70	252,919	17,90,888
1856-57	140,934	2,97,422	1870-71	184,935	13,13,307
1857-58	149,349	3,14,646	1871-72	196,993	14,36,184
1858-59	105,661	3,11,587	1872-73	244,698	18,08,643
1859-60	166,259	3,40,853	1873-74	238,833	18,84,384
1860-61	178,895	6,09,511	1874-75	265,205	20,04,854
1861-62	175,730	9,27,477	1875-76	253,172	18,90,966
1862-63	179,176	10,70,372	1876-77	290,816	25,92,012
1863-64	210,672	11,25,399	1877-78	293,353	23,83,518
1864-65	178,587	9,50,206	1878-79	300,262	25,78,996
1865-66	127,907	12,27,560	1879-80	240,821	17,62,670
1866-67	181,586	10,36,276	1880-81	234,417	15,81,637
1867-68	188,369	12,58,305	1881-82	327,407	23,54,202
1868-69	252,945	17,46,781	1882-83	322,799	24,17,192

value since 1855. Coir is principally exported from Malabar. The destination of these exports in the year 1882-83 is shown below.[43] The trade in coir is chiefly with the United Kingdom and Bombay.

464. The exports of timber and wood, including manufactures thereof, during the same twenty-eight years, have been as shown below.[44] During the five years ending 1883 the value of the exports has averaged 14 lakhs. Timber and wood are chiefly exported from Malabar and South Canara to Bombay. In the table at foot [45] is given the value of timber, &c., exported to various countries in the year 1882-83.

465. The progress of the export trade in tobacco is shown below.[46] During the last few years the exports exhibit a steady increase. The total exports amounted

[43] COUNTRIES TO WHICH COIR YARN AND ROPE EXPORTED.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign countries.	CWTS.	RS.	*Interprovincial.*	CWTS.	RS.
United Kingdom	89,316	7,98,550	Bombay	114,618	6,82,297
Ceylon	2,825	20,062	Bengal	16,124	1,10,427
France	3,140	34,113	British Burmah	6,874	36,334
Arabia	3,696	23,894	Scinde	1,498	7,769
Portugal	8,667	73,170			
Germany	6,892	57,687			
United States	3,950	54,320			
Other countries	1,950	12,963			
Total ...	1,20,436	10,74,759	Total ...	139,114	8,36,827
Foreign ports in India ...	63,249	5,05,606	Grand Total ...	322,799	24,17,192

[44] VALUE OF TIMBER AND WOOD EXPORTS.

1855-56 ...	Rs. 7,36,117	1862-63 ...	Rs. 11,44,023	1869-70 ...	Rs. 12,28,689	1876-77 ...	Rs. 11,30,088
1856-57 ...	„ 8,53,704	1863-64 ...	„ 15,70,559	1870-71 ...	„ 10,13,878	1877-78 ...	„ 11,00,494
1857-58 ...	„ 8,82,080	1864-65 ...	„ 16,06,538	1871-72 ...	„ 10,22,367	1878-79 ...	„ 11,92,009
1858-59 ...	„ 8,84,444	1865-66 ...	„ 16,54,166	1872-73 ...	„ 10,14,176	1879-80 ...	„ 11,36,449
1859-60 ...	„ 8,47,820	1866-67 * ...	„ 9,30,878	1873-74 ...	„ 10,28,803	1880-81 ...	„ 13,35,415
1860-61 ...	„ 9,31,317	1867-68 ...	„ 9,79,671	1874-75 ...	„ 10,65,906	1881-82 ...	„ 17,44,312
1861-62 ...	„ 12,37,475	1868-69 ...	„ 13,07,459	1875-76 ...	„ 10,45,109	1882-83 ...	„ 17,86,059

* Eleven months.

[45] COUNTRIES TO WHICH TIMBER AND WOOD EXPORTED.

Countries.	Value.	*Interprovincial Trade.*	Value.
	RS.		RS.
Arabia	47,138	Bombay	13,34,489
Ceylon	27,096	Scinde	80,794
Other countries	36,393	Bengal	17,710
		British Burmah	277
Total ...	1,10,627	Total ...	14,33,270
Indian ports not British	2,42,162	Grand Total ...	17,86,059

[46] QUANTITY AND VALUE OF TOBACCO EXPORTS.

Years.	Denominations.	Quantities.	Value.
			RS.
1855-56 ...	Number ...	10,244,804	2,16,721
	Lb. ...	2,466,634	
	Packages ..	222	
1856-57 ...	Number ..	6,941,100	2,02,345
	Lb. ...	1,897,542	
1857-58 ...	Number ...	10,181,651	2,59,342
	Lb. ...	3,071,746	
1858-59 ...	Number ...	10,361,250	2,57,998
	Lb. ...	2,935,435	
	Bottles ...	50	
1859-60 ...	Number ...	11,785,134	1,73,062
	Lb. ...	1,882,287	
1860-61 ...	„ ...	1,969,228	1,49,350
1861-62 ...	„ ...	1,905,738	1,48,823
1862-63 ...	„ ...	4,687,581	2,81,459
1863-64 ...	„ ...	2,929,200	3,40,143
1864-65 ...	„ ...	3,623,770	5,73,074
1865-66 ...	„ ...	3,368,522	4,62,755
1866-67 † ...	„ ...	2,481,696	3,39,085
1867-68 ...	„ ...	2,572,976	3,61,386

Years.	Denominations.	Quantities.	Value.
			RS.
1868-69 ...	Lb. ...	2,531,536	3,72,157
1869-70 ...	„ ...	3,320,464	5,98,869
1870-71 ...	„ ...	2,570,400	3,91,958
1871-72 ...	Lb. ...	3,788,736	5,48,911
	Number ...	99,050	
1872-73 ...	„ ...	3,288,936	6,35,252
	„ ...	2,000	
1873-74 ...	Lb. ...	4,225,634	7,90,811
	Number ...	36,000	
1874-75 ...	Lb. ...	4,530,232	7,78,906
	Number ...	500	
1875-76 ...	Lb. ...	4,530,905	7,32,343
1876-77 ...	„ ...	5,792,808	10,17,296
1877-78 ...	„ ...	6,411,051	11,16,835
1878-79 ...	„ ...	5,223,829	11,38,860
1879-80 ...	„ ...	7,372,627	11,31,370
1880-81 ...	„ ...	6,696,893	12,53,367
1881-82 ...	„ ...	5,934,550	12,96,744
1882-83 ...	„ ...	7,045,569	13,84,135

† Eleven months.

to 7,045,569 valued at over $13\frac{3}{4}$ lakhs, being an increase of lb. 1,111,000 in quantity and over Rupees 87,000 in value as compared with 1881-82. Tobacco is exported from the East Coast districts, especially Godavery, the bulk of it being sent to British Burmah for the manufacture of cheroots. Owing to the inferior quality of the leaf, however, it is not taken in any large quantity by the United Kingdom or other European countries. The quantities exported to the several countries during the year 1882-83 were as shown at foot.[47]

466. The figures for living animals are shown below.[48] The value of the exports under living animals had been steadily increasing during the ten years preceding the famine of 1876–78. Since then there has been marked decline. The trade is chiefly between the districts of Tanjore, Madura, Tinnevelly, and Ceylon. The number and value of animals exported in the year 1882-83 to different countries are shown below.[49]

467. Of the minor commercial products of this country, tea, which is cultivated on the Neilgherries, shows rapid progress and promises ere long to become an important feature in the export trade. The suitability of the Neilgherries for tea cultivation was demonstrated nearly forty years ago by actual experiment, and the

[47] COUNTRIES TO WHICH TOBACCO EXPORTED.

Countries to which exported.	Quantity.	Value.	Countries to which exported.	Quantity.	Value.
Foreign countries.	LB.	RS.	*Interprovincial.*	LB.	RS.
United Kingdom	30,170	27,157	Bengal	782,511	2,35,483
Mauritius	218,655	49,270	Bombay	149,596	40,173
Bourbon	39,750	13,275	British Burmah	5,156,122	9,06,571
Ceylon	73,920	16,739	Scinde	15,123	10,032
Straits Settlements	460,043	64,462			
Other countries	12,719	8,291	Total ...	6,103,352	11,92,259
Total ...	835,257	1,79,194			
Foreign ports in India ...	106,960	12,682	Grand Total...	7,045,569	13,84,135

[48] VALUE OF THE EXPORTS OF LIVING ANIMALS.

Years.	Number.	Value.	Years.	Number.	Value.
		RS.			RS.
1855-56	40,255	1,12,174	1869-70	Information not available.	4,04,108
1856-57	26,694	62,220	1870-71		4,66,514
1857-58	48,981	1,17,103	1871-72		5,65,098
1858-59	57,171	1,22,565	1872-73		6,09,609
1859-60	59,389	1,71,541	1873-74		7,02,724
1860-61	62,148	2,11,669	1874-75		7,01,095
1861-62	55,721	1,92,076	1875-76	102,785	7,92,747
1862-63	43,195	1,71,577	1876-77	122,009	10,44,374
1863-64	63,269	2,36,389	1877-78	115,256	8,76,825
1864-65	62,171	1,66,033	1878-79	124,181	11,58,183
1865-66	67,068	3,33,455	1879-80	117,532	8,44,688
1866-67 *	Information not available.	4,44,247	1880-81	89,562	5,63,652
1867-68		3,23,427	1881-82	105,963	5,88,233
1868-69		3,50,715	1882-83	86,740	7,64,159

* Eleven months.

[49] COUNTRIES TO WHICH LIVING ANIMALS EXPORTED, AND THEIR NUMBER AND VALUE.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign countries.	NO.	RS.	*Interprovincial.*	NO.	RS.
Ceylon	76,023	4,18,918	British Burmah	469	1,424
Straits Settlements	9,376	3,42,956	Bombay	838	339
Other countries	14	462	Bengal	20	60
Total ...	85,413	7,62,336	Total ...	1,327	1,823
Foreign ports in India ...	...	...	Grand Total ...	86,740	7,64,159

accounts show that in 1855-56 the exports of the produce amounted to 43,426 lb. valued at Rupees 34,376; in 1856-57 they had increased to 79,915 lb. valued at Rupees 57,461; in the next year, however, they fell to 13,699 lb. valued at Rupees 13,699; and in 1858-59 they dwindled down to the insignificant figure of 53 lb. (Rupees 70). From this period the industry appears to have been totally neglected till 1869-70 when exports began to revive. The progress of trade in this commodity has since been rapid, as will be seen from the figures shown below.[50] In 1882-83, however, there was a falling off as compared with 1881-82 of 3·2 per cent. in quantity and 11·7 per cent. in value. The port of shipment is Madras and the destination the United Kingdom, but large shipments are also made from Beypore and Calicut.

468. The value of the re-exports during a recent period of twelve years is shown in the subjoined statement.[51] The foreign re-exports are, on the whole, insignificant, being only 1 per cent. of the total import merchandise. The principal articles re-exported are cotton piece-goods and twist, apparel, jewellery, provisions, books, shells and cowries. The cotton piece-goods are dyed in this country and exported chiefly to the Straits Settlements. Apparel and jewellery are re-exported to the United Kingdom. The re-exports to foreign ports in India consist chiefly of cotton twist and cotton piece-goods. The destination of these is generally Pondicherry and Travancore. The interprovincial re-exports are of no importance.

469. IMPORT ARTICLES UNDER EXTERNAL TRADE.—The proportion of imports from foreign countries, imports from foreign ports in India, and imports from other Presidencies to total imports was about 64·6, ·8, and 34·6 per cent. respectively in 1875-76. In the following year these proportions were very much altered, being 37·6, ·9, and 61·5 respectively, in consequence of the severe famine in this Presidency which stimulated interprovincial trade in food grains to abnormal activity, but produced a corresponding depression in foreign trade. In 1882-83 the proportions stood at 65·6, ·4, and 34·0 per cent. respectively. The statement

[50] QUANTITY AND VALUE OF TEA EXPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	LB.	RS.		LB.	RS.
1869-70	6,166	9,162	1876-77	147,132	1,66,988
1870-71	17,883	18,065	1877-78	183,178	1,93,083
1871-72	33,579	45,594	1878-79	204,630	2,11,753
1872-73	43,426	52,417	1879-80	208,247	2,33,904
1873-74	80,581	89,166	1880-81	266,942	2,86,722
1874-75	93,918	1,14,383	1881-82	319,752	3,72,738
1875-76	120,924	1,46,272	1882-83	309,548	3,29,057

[51] VALUE OF RE-EXPORTS.

—	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.
	RS.	RS.	RS.	RS.	RS.	RS.
Foreign ports beyond India ...	5,94,205	6,05,802	5,92,660	9,72,251	5,12,426	6,36,355
Foreign ports in India	8,81,635	5,42,551	4,62,993	6,21,864	6,17,122	5,89,088
British ports in other Presidencies.	6,96,822	9,33,393	15,03,008	11,55,561	5,26,907	2,93,626
Total ...	21,72,662	20,81,746	25,58,661	27,49,641	16,56,455	15,19,069
—	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.
	RS.	RS.	RS.	RS.	RS.	RS.
Foreign ports beyond India ...	5,25,312	5,62,937	4,10,745	4,73,629	3,98,060	3,32,399
Foreign ports in India	5,76,910	4,84,087	2,99,493	2,74,046	2,28,968	84,117
British ports in other Presidencies.	2,56,104	3,25,050	3,90,076	2,92,116	3,50,881	3,45,166
Total ...	13,58,326	13,72,074	11,00,314	10,39,791	9,77,909	7,61,682

at foot [52] shows the principal articles of import for the year 1882-83, and the next table [53] shows the average value of the exports for the last twelve years.

470. The figures for piece-goods are indicated at foot.[54] The value of the imports of cotton piece-goods has increased nearly six-fold. In 1855-56 it amounted to 28 lakhs of rupees, but it rapidly rose till in the year 1860-61 it reached 61½ lakhs notwithstanding the increase of duty in 1859-60 from 5 to 10 per cent. In 1861-62 there was a fall, but in the next year the duty was reduced

[52] ARTICLES OF IMPORT UNDER EXTERNAL TRADE.

Articles.		Quantity.	Value.	Articles.		Quantity.	Value.
			RS.				RS.
Cotton piece-goods ...	Yards.	128,689,087	2,01,66,913	Apparel	Value.	...	17,13,495
Cotton do. ...	No.	431,793		Timber and wood ...	,,	...	11,51,833
Twist and yarn ...	Lb.	23,461,868	1,49,58,006	Railway materials ...	,,	...	7,90,181
Grain and pulse ...	Cwt.	2,700,229	73,54,864	All other articles ...	...	...	1,73,46,552
Metals	,,	369,912	42,80,498				
Liquors	Galls.	350,435	21,01,029	Total ...		...	6,98,63,371

[53] STATEMENT SHOWING THE AVERAGE VALUES IN RUPEES OF TRADE UNDER THE PRINCIPAL ARTICLES OF IMPORT FOR TWELVE YEARS.

——	Rice, paddy, &c.	Cotton piece-goods.	Cotton twist.	Metals.	Railway material.	Timber and wood.	Apparel.	Liquors, spirits.	Wines.	Ale, beer and porter.
Average of 1871-72 to 1882-83 excluding the famine years 1876-77, 1877-78, and 1878-79 ...	56	156	119	38	15	12	16	9	8	5
Average of 1871-72 to 1882-83	162	147	115	38	16	13	16	9	8	5

Note.—In the averages given above the last five figures are omitted in each case.

[54] QUANTITY AND VALUE OF COTTON PIECE-GOODS IMPORT.

Years.	Denomination.	Quantities.	Value.
			RS.
1855-56 ...	Pieces	825,406	27,85,199
	Yards	311,815	
1856-57 ...	Pieces	742,773	28,52,383
	Yards	478,899	
1857-58 ...	Pieces	985,067	37,92,992
	Yards	1,202,500	
1858-59 ...	Pieces	1,109,998	44,27,005
	Yards	2,693,436	
1859-60 ...	Pieces	991,923	48,94,476
	Yards	9,865,548	
1860-61 ...	Pieces	1,577,515	61,40,183
1861-62 ...	,, ...	1,228,051	52,38,752
1862-63 ...	,, ...	1,449,846	64,16,495
1863-64 ...	,, ...	1,694,346	1,01,12,573
1864-65 ...	,, ...	1,470,338	95,87,776
1865-66 ...	,, ...	1,606,129	1,12,47,895
1866-67* ...	Yards	42,090,843	1,02,33,102
	Pairs	3,062	
	Dozens... ...	13,897	
1867-68 ...	Yards	57,943,399	1,20,26,540
	Pieces	636	
	Dozens ...	17,488	
1868-69 ...	Yards	66,926,335	1,35,43,760
	Pieces	1,396	
	Pairs	2,656	
	Dozens... ...	47,587½	
1869-70 ...	Yards	71,927,986	1,25,64,225
	Pieces	2,525	
	Pairs	33	
	Dozens... ...	39,247½	

Years.	Denomination.	Quantities.	Value.
			RS.
1870-71 ...	Yards	94,600,201	1,49,66,869
	Dozens	11,469½	
1871-72 ...	Yards	93,802,169	1,52,94,988
	Pieces	301	
	Dozens	38,507	
1872-73 ...	Yards	86,584,277	1,41,44,953
	Pieces	303	
	Dozens	30,342½	
1873-74 ...	Yards	96,477,264	1,56,98,902
	Pieces	81	
	Dozens	17,191	
1874-75 ...	Yards	78,988,740	1,35,60,894
	Pieces	7,634	
	Dozens	11,012	
1875-76 ...	Yards	88,563,787	1,43,20,756
	Number ...	116,717	
1876-77 ...	Yards	87,317,101	1,43,45,021
	Number ...	149,061	
1877-78 ...	Yards	72,422,094	1,14,14,349
	Number ...	206,247	
1878-79 ...	Yards	68,532,976	1,05,23,407
	Number ...	189,161	
1879-80 ...	Yards	86,934,637	1,32,60,241
	Number ...	93,164	
1880-81 ...	Yards	106,400,151	1,67,60,984
	Number ...	534,460	
1881-82 ...	Yards	110,833,122	1,69,50,690
	Number ...	223,313	
1882-83 ...	Yards	128,689,082	2,01,66,913
	Number ...	431,793	

* Eleven months.

to 5 per cent. and the value of imports rose to 64 lakhs and in 1863-64 to 101 lakhs. With the exception of the years 1864-65 and 1866-67, which consisted only of eleven months, the imports steadily rose till in 1868-69 the value amounted to 135 lakhs. In 1869-70 the Tariff valuations were reduced 15 per cent., consequently there was in that year a fall in the declared value to 125 lakhs though there was an increase in quantity. For the next five years the imports averaged 147 lakhs of rupees. In 1875-76 the Tariff valuations were again lowered, but this circumstance has been more than counterbalanced by the additional impetus given to trade thereby, and the imports during the years 1875-76 and 1876-77 amounted to a little over 143 lakhs of rupees. In 1877-78 the value of imports fell to 114 lakhs, and in 1878-79 there was a further fall to 105 lakhs, but they rose to 132 lakhs in 1879-80, to 167 lakhs in 1880-81, to 169 lakhs in 1881-82, and to 201 lakhs in 1882-83. The statement at foot [55] shows the countries from which cotton piece-goods were imported during the year 1882-83.

471. The imports of cotton twist for the same twenty-eight years are shown below.[56] The quantity has risen from less than four millions to more than 23

[55] COUNTRIES FROM WHICH COTTON PIECE-GOODS IMPORTED.

Countries.	Denomination.	Quantities.	Value.
Foreign countries.			RS.
United Kingdom	Yards	108,053,566	1,66,05,716
	Number	310,152	35,904
Ceylon	Yards	4,967,321	9,02,209
	Number	2,286	860
France	Yards	27,419	6,241
	Number	...	...
Straits Settlements	Yards	452,500	90,647
	Number	...	...
Other countries	Yards	16,199	4,778
	Number	673	1,148
Total ...	Yards	113,517,005	1,76,09,591
	Number	313,111	37,912
Indian ports not British	Yards	1,360	720
Interprovincial Trade.			
Bombay	Yards	13,595,426	22,10,551
	Number	114,180	23,181
Bengal	Yards	1,570,141	2,83,136
	Number	4,502	812
British Burmah	Yards	5,150	1,010
	Number	...	...
Total ...	Yards	15,170,717	24,94,697
	Number	118,682	23,993
Grand Total ...	Yards	128,689,082	2,01,05,008
	Number	431,793	61,905

[56] QUANTITY AND VALUE OF COTTON TWIST IMPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	LB.	RS.		LB.	RS.
1855-56	3,929,839	22,68,071	1869-70	11,683,508	92,71,945
1856-57	4,205,740	22,70,388	1870-71	12,902,600	1,04,27,948
1857-58	3,504,233	21,45,307	1871-72	11,714,712	94,78,866
1858-59	6,147,607	35,46,077	1872-73	14,288,269	1,07,30,337
1859-60	7,366,788	41,59,590	1873-74	13,264,405	1,04,08,275
1860-61	7,035,001	38,84,960	1874-75	14,150,868	1,08,86,821
1861-62	6,177,535	38,05,750	1875-76	16,018,797	1,23,88,399
1862-63	4,023,301	25,85,638	1876-77	16,476,463	1,13,40,439
1863-64	6,978,675	45,32,792	1877-78	14,240,204	98,52,583
1864-65	6,418,914	61,76,796	1878-79	14,133,540	95,21,614
1865-66	6,522,650	71,61,022	1879-80	16,464,321	1,20,33,904
1866-67 *	7,165,098	78,59,122	1880-81	20,251,684	1,46,12,249
1867-68	9,196,894	83,36,638	1881-82	17,871,840	1,20,15,663
1868-69	10,095,240	91,63,489	1882-83	23,461,868	1,49,58,006

* Eleven months.

millions of pounds and the value from 22 to 149 lakhs of rupees. The lower valuation prescribed by the Tariff of 1875 has stimulated imports, and there was accordingly an increase in the quantity imported in 1876-77 although the value showed a decrease. In two following years the imports were somewhat affected by the famine, but since then there has been a large increase. The countries which supplied the twist in 1882-83 are shown at foot.[57]

472. The imports of food grains for the last twenty-eight years have been as given below.[58] The figures fluctuate very much, being dependent on the nature of the harvests in this Presidency as well as on other sources of supply. But in the later years of serials there has been a decided improvement, and this notwithstanding the famine in Bengal; during the famine of 1876–78 the imports assumed enormous proportions, the value for 1876-77 being nearly ten-fold that of 1875-76. The subjoined statement [59] shows the quantity and value of grain received from the several countries during the year 1882-83. Ceylon does not usually supply but receives grain from this Presidency; in 1876-77, however, the imports from that country amounted to 6½ lakhs of rupees. The value of imports from Bengal increased in 1876-77 twenty-three-fold and those from Bombay and British Burmah three-fold. The imports during the year 1882-83 were the highest on record, with the exception of those of four years (1876–80) in which they were abnormally high owing to the famine. The total value of rice and paddy imported in 1882-83 amounted to 65½ lakhs, of which 58 lakhs or 88·4 per cent. came from Bengal, over 4½ lakhs or 7·1 per cent. from Bombay, and nearly 2½ lakhs or 3·8 per cent. from British Burmah.

[57] COUNTRIES FROM WHICH TWIST IMPORTED, AND ITS QUANTITY AND VALUE.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign.	LB.	RS.	*Interprovincial.*	LB.	RS.
United Kingdom	14,830,803	1,03,38,889	Bengal	1,353,070	11,75,009
Ceylon	66,976	53,523	Bombay	7,162,115	33,51,689
Other countries	42,864	34,551	British Burmah	4,240	2,300
Total ...	14,940,643	1,04,26,963	Total ...	8,519,425	45,28,998
Indian ports not British ...	1,800	2,045	Grand Total ...	23,461,868	1,49,58,006

[58] IMPORT OF FOOD GRAINS.

Years.	Paddy.		Rice.		Other grains.		Total value of all grains.
	CWTS.	RS.	CWTS.	RS.	CWTS.	RS.	RS.
1855-56	32,665	49,366	631,357	20,48,791	116,875	3,44,051	24,42,208
1856-57	214,214	3,65,622	432,138	12,23,959	132,009	3,98,250	19,87,831
1857-58	217,196	3,53,328	281,420	8,21,518	117,755	3,67,312	15,42,158
1858-59	373,737	7,35,322	184,554	6,48,870	117,182	3,57,479	17,41,671
1859-60	238,897	4,17,298	112,951	3,66,655	121,080	3,73,302	11,57,255
1860-61	291,821	5,49,846	210,710	7,48,637	104,379	3,77,516	16,75,499
1861-62	340,910	7,19,206	670,152	24,40,847	135,000	5,51,950	37,12,003
1862-63	274,589	5,57,377	935,013	32,02,678	125,902	5,37,246	42,97,301
1863-64	367,409	8,04,248	1,042,183	38,54,227	90,278	5,64,958	51,23,433
1864-65	298,169	6,17,849	1,054,161	40,32,597	96,277	5,82,357	52,32,803
1865-66	491,263	12,69,030	544,674	25,12,205	94,558	5,88,771	43,70,006
1866-67*	465,291	13,88,107	271,999	14,51,723	121,920	11,51,545	39,91,375
1867-68	561,909	14,24,109	351,585	15,40,690	146,806	6,97,927	36,62,726
1868-69	534,271	13,72,779	526,127	21,35,879	218,580	8,04,568	43,13,226
1869-70	637,868	15,76,008	936,122	37,89,426	82,952	4,06,539	57,71,973
1870-71	344,744	7,10,636	828,565	29,83,080	Not available.	7,51,244	44,44,960
1871-72	287,089	5,99,080	732,103	25,21,655		5,31,021	36,51,756
1872-73	329.789	7,39,261	864,756	31,14,109		7,21,536	45,74,906
1873-74	539,706	12,67,668	562,754	20,38,452		15,76,217	48,82,337
1874-75	807,559	20,23,948	372,900	13,77,334		10,92,230	44,93,509
1875-76	798,440	20,19,554	413,132	15,53,749	261,097	9,98,156	45,71,458
1876-77	1,215,832	37,13,374	5,996,665	3,27,63,487	1,400,692	66,18,384	4,30,95,245
1877-78	2,228,214	78,18,454	9,218,738	5,54,21,447	2,377,995	1,31,16,191	7,63,56,092
1878-79	1,868,609	59,89,069	2,494,958	1,37,09,053	770,744	42,68,012	2,39,66,134
1879-80	1,098,287	30,32,875	611,802	27,79,610	569,428	26,85,456	84,97,941
1880-81	443,055	9,70,234	804,527	27,53,860	477,628	16,33,331	53,57,425
1881-82	711,652	12,16,900	1,630,450	52,10,173	260,535	8,04,657	72,31,730
1882-83	757,600	12,75,061	1,684,402	52,80,870	258,163	7,99,053	73,54,984

* Eleven months.

473. The figures for metals [60] are given below. The value of imports of metals has risen from about 11 lakhs to nearly 43 lakhs of rupees. Up to 1863-64 a duty of 10 per cent. was levied on metals, but in that year the duty on iron was reduced to 1 per cent. In the following year the duty on other metals was reduced to 7½ per cent. The tariff valuation was reduced about 15 per cent. in 1869-70, but it was raised again in 1875, though at the same time the duty on metals other than iron was reduced from 7½ to 5 per cent. The imports of 1875-76 amounted to 50 lakhs of rupees, the highest figure reached; but in 1876-77 there was a falling off by nearly 13 per cent. Manufactures of iron and copper are imported from the United Kingdom, tin from the Straits Settlements, copper unwrought from Australia. Bengal also supplies brass, copper, iron, and tin, and Bombay the same metals in larger quantities. The table at foot [61] shows the countries from which the supplies of metals were obtained in 1882-83.

[59] COUNTRIES FROM WHICH FOOD GRAINS IMPORTED, WITH THEIR QUANTITY AND VALUE.

Countries.	Paddy.		Rice.		Other grains.		Total value of all grains.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Foreign countries.	CWTS.	RS.	CWTS.	RS.	CWTS.	RS.	RS.
Ceylon	31	72	155	524	1,113	4,096	4,692
Other countries	7	38	53	207	68	225	470
Total ...	38	110	208	731	1,181	4,321	5,162
Foreign ports in India	16,832	30,609	1,602	5,364	1,869	6,697	42,670
Interprovincial.							
Bengal	426,765	6,80,361	1,623,095	51,14,264	111,462	3,28,997	61,23,622
Bombay	232,629	4,47,532	5,225	17,957	104,590	3,71,745	8,37,234
British Burmah	75,598	1,06,777	54,177	1,42,254	38,831	86,533	3,35,564
Scinde	5,738	9,672	95	300	230	760	10,732
Total ...	740,730	12,44,342	1,682,592	52,74,775	255,113	7,88,035	73,07,152
Grand Total ...	757,600	12,75,061	1,684,402	52,80,870	258,163	7,99,053	73,54,984

[60] VALUE OF METAL IMPORTS.

	RS.		RS.
1855-56	10,80,744	1869-70	46,67,756
1856-57	19,88,816	1870-71	39,81,539
1857-58	19,19,355	1871-72	32,24,870
1858-59	24,32,980	1872-73	27,16,845
1859-60	22,82,490	1873-74	31,36,058
1860-61	30,29,989	1874-75	35,89,154
1861-62	36,22,062	1875-76	49,97,332
1862-63	23,32,773	1876-77	43,28,798
1863-64	33,72,913	1877-78	44,93,469
1864-65	37,51,840	1878-79	31,35,682
1865-66	31,83,285	1879-80	35,54,266
1866-67 *	30,32,582	1880-81	47,08,113
1867-68	40,12,577	1881-82	38,39,206
1868-69	43,36,849	1882-83	42,80,498

* Eleven months.

[61] COUNTRIES FROM WHICH METALS OBTAINED, AND THEIR QUANTITY AND VALUE.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign countries.	CWTS.	RS.	*Interprovincial.*	CWTS.	RS.
United Kingdom	233,110	23,88,402	Bombay	101,998	12,02,072
Straits Settlements	2,724	1,46,400	Bengal	19,495	3,96,484
Ceylon	9,030	83,946	British Burmah	2,002	14,383
Australia	440	17,518	Scinde	1	19
Other countries	255	22,251			
Total ...	245,559	26,58,517	Total ...	123,496	16,12,958
Foreign ports in India ...	857	9,023	Grand Total ...	369,912	42,80,498

474. The progress in the imports of spirits is shown in the subjoined statement.[62] During the last five years the imports have averaged 96,096 gallons in quantity and 10,15,724 rupees in value. Up to 1858-59 the duty levied on spirits was Rupees 1-8-0 a gallon; it was in that year raised to Rupees 3. This rate continued in force till 1875, when it was further raised to Rupees 4. The imports of 1876-77 show a falling off of 11½ per cent., but this can hardly be attributed solely to the operation of the higher rate of duty. The imports fluctuate considerably from year to year, and their value in 1877-78 was the highest recorded. The table at foot [63] shows the quantity and value of the spirits imported from the several countries in the year 1882-83.

475. The imports of wines for twenty-eight years are given below.[64] The figures fluctuate very much, but on the whole during the latter years of the series there has been an increase. The duty originally levied on wines and liquors was 1 rupee per gallon; it was increased to 2 rupees in 1859. In 1862 a differential rate of 1 rupee and Rupees 2 was prescribed for higher wines and other kinds respectively, but in 1863 this was abandoned and the original uniform rate

[62] QUANTITY AND VALUE OF SPIRITS IMPORTED.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	GLS.	RS.		GLS.	RS.
1857-58	44,187	2,02,436	1870-71	93,485	8,52,126
1858-59	91,188	6,33,036	1871-72	84,989	7,68,163
1859-60	27,640	1,85,255	1872-73	94,660	8,07,817
1860-61	31,659	2,55,125	1873-74	71,991	6,30,737
1861-62	34,481	2,87,670	1874-75	69,554	6,17,072
1862-63	54,285	4,73,550	1875-76	112,668	10,24,528
1863-64	68,127	5,99,348	1876-77	99,889	9,07,178
1864-65	45,281	3,86,579	1877-78	118,357	11,73,608
1865-66	68,149	6,10,344	1878-79	95,905	10,00,435
1866-67	59,917	5,27,730	1879-80	100,903	10,93,399
1867-68	75,257	6,39,605	1880-81	92,718	9,83,791
1868-69	85,729	7,76,043	1881-82	89,948	9,11,829
1869-70	114,518	10,15,528	1882-83	101,005	10,89,168

[63] COUNTRIES FROM WHICH SPIRITS IMPORTED, WITH QUANTITY AND VALUE.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign countries.	GLS.	RS.	*Interprovincial.*	GLS.	RS.
United Kingdom	91,316	9,75,302	Bombay	2,355	26,316
France	4,437	62,730	Bengal	751	7,899
Ceylon	152	1,150	British Burmah	...	...
Other countries	442	3,440			
Total ...	96,347	10,42,622	Total ...	3,106	34,215
Foreign ports in India ...	1,552	12,331	Grand Total ...	101,005	10,89,168

[64] QUANTITY AND VALUE OF WINE IMPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	GLS.	RS.		GLS.	RS.
1855-56	55,848	5,84,037	1869-70	132,354	11,41,279
1856-57	34,267	2,46,775	1870-71	105,920	10,14,550
1857-58	52,314	3,52,576	1871-72	106,776	9,54,876
1858-59	87,307	7,62,304	1872-73	116,827	10,42,821
1859-60	65,467	6,35,401	1873-74	120,468	10,23,206
1860-61	58,484	5,67,371	1874-75	90,435	7,31,283
1861-62	51,038	4,77,598	1875-76	101,710	8,35,741
1862-63	55,109	4,74,276	1876-77	91,054	6,49,637
1863-64	86,451	7,28,327	1877-78	92,888	6,72,479
1864-65	71,182	5,82,430	1878-79	109,981	7,86,096
1865-66	85,570	7,59,141	1879-80	71,587	5,86,145
1866-67	95,594	7,78,261	1880-81	88,359	6,64,735
1867-68	102,366	8,55,638	1881-82	82,241	6,66,901
1868-69	112,847	8,84,946	1882-83	74,669	6,15,422

of 1 rupee a gallon was reverted to. This continued in force till 1867 when sparkling wines and liquors were taxed at Rupees 1½ per gallon, and all other wines at Rupee 1. In August 1875 the duties were further enhanced, the rates being 2½ rupees for sparkling wines, and 1¼ rupees for all other wines except claret and still Burgundy, which was charged 1 rupee. In 1876-77 the imports fell below those of any of the preceding ten years, and there has been a further decrease since 1879-80; this result being probably due to the increased use of spirits. In the statement [65] are contrasted the quantities and values of wines imported from the several countries during 1882-83.

476. The imports of malt liquors—ale, beer, and porter—for the same twenty-eight years are given in the subjoined statement.[66] These imports in like manner with wines fluctuate greatly. Prior to 1859-60 these liquors paid a duty of 5 per cent., but in that year a duty of 4 annas an imperial gallon was substituted. In 1862-63 the duty was reduced to 2 annas, and in the following year to 1 anna, which is the present rate. In the statement [67] are compared the quantity and value of the imports according to the source of supply during the year 1882-83.

[65] COUNTRIES FROM WHICH WINE IMPORTED, WITH ITS QUANTITY AND VALUE.

Countries.	Quantity.	Value.	Countries.	Quantity.	Value.
Foreign countries.	GLS.	RS.	*Interprovincial.*	GLS.	RS.
United Kingdom	63,144	5,49,608	Bombay...	1,516	12,146
France	5,192	26,300	Bengal	786	9,139
Ceylon	130	1,130	British Burmah	...	...
Other countries	865	6,630			
Total ...	69,331	5,83,668	Total ...	2,302	21,285
Foreign ports in India ...	3,036	10,469	Grand Total ...	74,669	6,15,422

[66] QUANTITY AND VALUE OF MALT LIQUOR IMPORTS.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	GLS.	RS.		GLS.	RS.
1855-56	609,105	5,26,491	1869-70	264,239	6,64,505
1856-57	366,346	2,93,035	1870-71	260,595	6,76,362
1857-58	177,177	1,82,852	1871-72	172,514	4,53,272
1858-59	498,822	5,38,487	1872-73	284,358	7,78,051
1859-60	518,551	6,41,837	1873-74	239,985	6,11,041
1860-61	294,360	4,81,374	1874-75	269,875	6,97,363
1861-62	194,155	3,85,766	1875-76	196,128	5,02,455
1862-63	237,139	5,53,480	1876-77	180,889	3,95,313
1863-64	276,773	6,69,678	1877-78	227,484	4,93,675
1864-65	331,873	7,56,838	1878-79	197,176	4,26,352
1865-66	293,999	6,66,830	1679-80	140,656	3,27,079
1866-67 *	331,258	8,24,256	1880-81	146,231	3,67,949
1867-68	283,100	7,42,358	1881-82	160,792	3,92,434
1868-69	323,533	7,75,434	1882-83	172,787	3,89,016

* Eleven months.

[67] COUNTRIES FROM WHICH MALT LIQUOR IMPORTED, WITH ITS QUANTITY AND VALUE.

Countries.	1882-83.		Countries.	1882-83.	
	Quantity.	Value.		Quantity.	Value.
Foreign countries.	GLS.	RS.	*Interprovincial.*	GLS.	RS.
United Kingdom	164,517	3,64,682	Bengal	1,421	4,348
Germany	4,880	14,400	Bombay	1,738	4,847
Ceylon	227	727	British Burmah	...	...
Total ...	169,624	3,79,809	Total ...	3,159	9,195
Foreign ports in India ...	4	12	Grand Total ...	172,787	3,89,016

477. The progress of trade under the head of apparel is shown in the subjoined statement.[68] The table at foot shows the countries from which apparel is imported and the value for the year 1882-83.[69]

478. The imports of timber during the same twenty-eight years are shown in the subjoined statement.[70] During the last five years the value of the imports has averaged Rupees 12,24,584. Timber is principally obtained from British Burmah. The table below [71] shows the value of timber and the several countries from which it was obtained in 1882-83.

479. The statement at foot [72] shows the value of railway materials imported during the same twenty-eight years. The value of imports of this class of goods necessarily fluctuates, inasmuch as the traffic depends upon extension of railway communication in this country. The large increase in the years 1874-75 and 1875-76 was due to the construction of the South Indian Railway; the gradual completion of the line led to large falling off in the following years. Railway materials are obtained principally from the United Kingdom.

480. GOVERNMENT STORES, IMPORTS AND EXPORTS.—The imports of Government stores during the year 1882-83 amounted to Rupees 25,76,837. The principal articles imported are building materials, hardware and cutlery, liquors, machinery, paper, telegraph materials, woollen, piece-goods, salt, leather manufactures, railway materials, agricultural implements, gram and tea. All these articles, excepting salt, arrack (liquors), gram and tea, are obtained from the United Kingdom; salt is obtained from Bombay for consumption in the West Coast districts; arrack from Ceylon for consumption within the Town of Madras and its environs, and agricultural implements, gram and tea from Bengal. The exports under this head are

[68] VALUE OF APPAREL IMPORT.

1855-56 ...	Rs. 7,39,597	1862-63 ...	Rs. 10,33,052	1869-70 ...	Rs. 11,91,219	1876-77 ...	Rs. 16,32,621
1856-57 ...	„ 8,35,747	1863-64 ...	„ 11,60,863	1870-71 ...	„ 11,76,281	1877-78 ...	„ 15,41,366
1857-58 ...	„ 10,97,186	1864-65 ...	„ 12,85,052	1871-72 ...	„ 15,37,782	1878-79 ...	„ 16,08,726
1858-59 ...	„ 12,78,149	1865-66 ...	„ 12,31,181	1872-73 ...	„ 16,23,705	1879-80 ...	„ 16,77,654
1859-60 ...	„ 11,12,170	1866-67 ...	„ 9,36,385	1873-74 ...	„ 16,28,656	1880-81 ...	„ 16,11,182
1860-61 ...	„ 10,65,927	1867-68 ...	„ 11,50,663	1874-75 ...	„ 14,48,625	1881-82 ...	„ 14,39,201
1861-62 ...	„ 10,54,715	1868-69 ...	„ 12,93,019	1875-76 ...	„ 18,10,154	1882-83 ...	„ 17,13,495

[69] COUNTRIES FROM WHICH APPAREL IMPORTED, AND ITS VALUE.

Foreign countries.		*Interprovincial.*	
United Kingdom ...	Rs. 7,85,746	Bengal ...	Rs. 60,004
France ...	„ 7,10,475	Bombay ...	„ 1,31,828
Ceylon ...	„ 5,533	British Burmah ...	„ 2,354
Straits Settlements ...	„ 6,550		
Other countries ...	„ 9,475	Total ...	1,94,186
Total ...	15,17,779	Grand Total ...	17,13,495
Foreign ports in India ...	1,530		

[70] VALUE OF TIMBER AND WOOD IMPORTS.

1855-56 ...	Rs. 9,28,712	1862-63 ...	Rs. 10,72,578	1869-70 ...	Rs. 13,84,172	1876-77 ...	Rs. 17,21,911
1856-57 ...	„ 10,42,322	1863-64 ...	„ 10,29,853	1870-71 ...	„ 12,54,967	1877-78 ...	„ 14,93,575
1857-58 ...	„ 16,41,951	1864-65 ...	„ 12,32,257	1871-72 ...	„ 10,47,406	1878-79 ...	„ 16,66,146
1858-59 ...	„ 9,14,288	1865-66 ...	„ 20,06,822	1872-73 ...	„ 11,97,435	1879-80 ...	„ 10,40,879
1859-60 ...	„ 8,41,122	1866-67 ...	„ 10,67,665	1873-74 ...	„ 13,52,080	1880-81 ...	„ 10,15,989
1860-61 ...	„ 7,14,255	1867-68 ...	„ 12,19,703	1874-75 ...	„ 15,79,554	1881-82 ...	„ 12,48,073
1861-62 ...	„ 7,10,036	1868-69 ...	„ 12,42,129	1875-76 ...	„ 15,17,622	1882-83 ...	„ 11,51,833

[71] COUNTRIES FROM WHICH TIMBER IMPORTED, AND ITS VALUE.

Foreign countries.		*Interprovincial.*	
Ceylon ...	Rs. 2,30,537	British Burmah ...	Rs. 6,96,584
Straits Settlements ...	„ 13,985	Bombay ...	„ 1,35,914
United Kingdom ...	„ 8,019	Bengal ...	„ 20,001
Other countries ...	„ 900		
Total ...	2,53,441	Total ...	8,52,499
Foreign ports in India ...	45,893	Grand Total ...	11,51,833

[72] VALUE OF IMPORT OF RAILWAY MATERIALS.

1855-56 ...	Rs. 22,41,162	1862-63 ...	Rs. 9,26,179	1869-70 ...	Rs. 8,19,871	1876-77 ...	Rs. 20,75,164
1856-57 ...	„ 32,46,923	1863-64 ...	„ 21,14,588	1870-71 ...	„ 19,85,305	1877-78 ...	„ 19,61,663
1857-58 ...	„ 4,98,108	1864-65 ...	„ 15,84,102	1871-72 ...	„ 6,02,319	1878-79 ...	„ 16,56,927
1858-59 ...	„ 8,00,014	1865-66 ...	„ 33,98,924	1872-73 ...	„ 3,60,267	1879-80 ...	„ 5,39,391
1859-60 ...	„ 21,61,136	1866-67 ...	„ 14,56,453	1873-74 ...	„ 12,85,673	1880-81 ...	„ 7,93,139
1860-61 ...	„ 26,56,226	1867-68 ...	„ 34,44,375	1874-75 ...	„ 32,70,336	1881-82 ...	„ 11,56,444
1861-62 ...	„ 27,75,494	1868-69 ...	„ 19,19,338	1875-76 ...	„ 45,95,289	1882-83 ...	„ 7,90,181

generally insignificant. The total exports and imports of Government stores during a recent period of twelve years are compared below.[73]

481. TREASURE, IMPORTS AND EXPORTS.—The subjoined statement [74] shows the imports and exports of treasure for this Presidency during a recent twenty-eight years. The figures do not include remittances between ports within the Presidency. Of recent years the net imports have greatly diminished. The net imports of gold and silver during the same twenty-eight years are separately shown below.[75] The

[73] TOTAL EXPORTS AND IMPORTS OF GOVERNMENT STORES.

Years.	Exports.	Imports.	Years.	Exports.	Imports.
	RS.	RS.		RS.	RS.
1871-72	84,662	27,63,254	1877-78	5,12,639	48,11,826
1872-73	7,205	41,40,418	1878-79	4,89,922	26,99,798
1873-74	830	25,44,848	1879-80	10,68,612	35,92,338
1874-75	87,504	43,97,664	1880-81	13,79,269	35,75,795
1875-76	18,652	42,97,428	1881-82	9,80,793	29,18,701
1876-77	2,80,167	43,43,951	1882-83	4,35,865	25,76,837

[74] IMPORTS AND EXPORTS OF TREASURE.

Years.	Imports.			Exports.			Net Imports.
	By Government.	By private individuals.	Total.	By Government.	By private individuals.	Total.	
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1855-56	...	1,37,10,286	1,37,10,286	7,14,637	37,03,614	44,18,251	92,92,035
1856-57	...	1,70,37,382	1,70,37,382	10,00,000	23,33,678	33,33,678	1,37,03,704
1857-58	...	1,86,21,912	1,86,21,912	24,22,016	91,29,456	1,15,51,472	70,70,440
1858-59	3,03,310	1,39,92,897	1,42,96,207	...	56,61,731	56,61,731	86,34,476
1859-60	51,624	1,73,88,060	1,74,39,684	...	40,97,547	40,97,547	1,33,42,137
1860-61	...	2,07,25,887	2,07,25,887	...	59,88,481	59,88,481	1,47,37,406
1861-62	...	2,22,85,900	2,22,85,900	...	36,58,486	36,58,486	1,86,27,414
1862-63	51,02,833	2,52,84,057	3,03,86,890	30,00,000	26,50,551	56,50,551	2,47,36,339
1863-64	44,30,000	3,16,45,736	3,60,75,736	1,57,03,000	63,36,284	2,20,39,284	1,40,36,452
1864-65	...	3,03,13,248	3,03,13,248	89,20,000	91,95,192	1,81,15,192	1,21,98,056
1865-66	...	3,66,41,092	3,66,41,092	62,00,000	64,03,368	1,26,03,368	2,40,37,724
1866-67	...	1,36,83,955	1,36,83,955	67,28,685	1,08,00,995	1,75,29,680	– 38,45,725
1867-68	...	1,12,93,529	1,12,93,529	79,00,000	22,55,634	1,01,55,634	11,37,895
1868-69	...	2,25,60,091	2,25,60,091	5,23,000	31,58,960	36,81,960	1,88,78,131
1869-70	...	1,76,42,023	1,76,42,023	5,60,243	55,62,414	61,22,657	1,15,19,366
1870-71	3,00,000	79,68,321	82,68,321	62,91,917	1,09,21,044	1,72,12,961	– 89,44,640
1871-72	3,00,000	1,01,82,238	1,04,82,238	6,05,525	62,62,299	68,67,824	36,14,414
1872-73	3,35,300	1,15,81,380	1,19,16,680	35,26,093	34,66,865	69,92,958	49,23,722
1873-74	2,00,000	82,67,633	84,67,633	87,39,492	96,54,642	1,83,94,134	– 99,26,501
1874-75	8,82,000	87,10,178	95,92,178	64,28,642	33,26,323	97,54,965	– 1,62,787
1875-76	6,97,000	88,65,079	95,62,079	12,06,305	31,65,232	43,71,537	51,90,542
1876-77	45,99,293	81,88,615	1,27,87,908	31,07,043	65,51,077	96,58,120	31,29,788
1877-78	27,000	45,88,135	46,15,135	1,00,52,743	62,85,218	1,63,37,961	– 1,17,22,826
1878-79	...	37,95,744	37,95,744	95,66,419	29,45,368	1,25,11,787	– 87,16,043
1879-80	...	47,66,362	47,66,362	39,08,010	28,15,209	67,23,219	– 19,56,857
1880-81	...	49,31,616	49,31,616	23,84,244	33,36,761	57,21,005	– 7,89,389
1881-82	...	37,98,343	37,98,343	64,48,798	33,12,014	97,60,812	– 59,62,469
1882-83	...	38,54,573	38,54,573	33,61,345	14,91,617	48,52,962	– 9,98,389

[75] NET IMPORTS OF GOLD AND SILVER.

Years.	Net imports of gold.	Net imports of silver.	Years.	Net imports of gold.	Net imports of silver.
	RS.	RS.		RS.	RS.
1855-56	22,39,226	70,52,809	1869-70	99,05,334	16,14,032
1856-57	29,77,753	1,07,25,951	1870-71	46,88,957	1,36,33,597
1857-58	45,56,539	25,13,901	1871-72	50,65,336	14,50,922
1858-59	31,84,436	54,50,040	1872-73	47,69,228	1,54,494
1859-60	51,57,188	81,84,949	1873-74	17,05,286	1,16,31,787
1860-61	74,04,090	73,33,316	1874-75	22,28,960	23,91,747
1861-62	93,20,865	93,06,549	1875-76	29,13,576	22,76,966
1862-63	1,18,91,511	1,28,44,828	1876-77	14,85,139	16,44,649
1863-64	1,28,40,654	11,95,798	1877-78	18,51,659	1,35,74,485
1864-65	1,31,33,199	9,35,143	1878-79	11,70,986	98,87,029
1865-66	1,09,08,532	1,31,29,192	1879-80	23,00,295	42,57,152
1866-67 *	31,68,461	70,14,186	1880-81	20,89,668	28,79,057
1867-68	56,49,238	45,11,343	1881-82	23,39,059	83,01,528
1868-69	85,26,747	1,03,51,384	1882-83	20,16,318	30,14,707

* Eleven months.

imports of silver are chiefly from Ceylon, Goa, Bombay and Bengal. There are large exports to Ceylon.

(c) *Sea-going Trade—Interportal.*

482. AMOUNT OF INTERPORTAL TRADE.—The interportal import trade within the Presidency in 1882-83 amounted in value to 126¾ lakhs of rupees and the export trade to 134½ lakhs. The total interportal trade bears generally the proportion of 16·7 per cent. to the total trade. The statement at foot [76] compares the exports and imports for the twelve years ending 1882-83.

483. IMPORTS AND EXPORTS UNDER INTERPORTAL TRADE.—The statement at foot [77] shows the principal commodities imported and exported during the year 1882-83.

484. TREASURE UNDER INTERPORTAL TRADE.—The movements of treasure within

[76] INTERPORTAL TRADE.

—		Merchandise.	Treasure.	Total.	—		Merchandise.	Treasure.	Total.
		RS.	RS.	RS.			RS.	RS.	RS.
1871-72 ...	Imports ...	1,68,71,844	37,96,702	2,06,68,546	1877-78 ...	Imports ...	3,18,28,540	63,89,567	3,82,18,107
	Exports ...	1,66,21,320	48,58,847	2,14,80,167		Exports ...	2,74,24,382	68,49,246	3,42,73,628
1872-73 ...	Imports ...	1,50,09,423	17,18,461	1,67,27,884	1878-79 ...	Imports ...	1,44,36,706	22,14,658	1,66,51,364
	Exports ...	1,53,64,519	18,18,097	1,71,82,616		Exports ...	1,44,18,569	26,10,666	1,70,29,235
1873-74 ...	Imports ...	1,70,59,961	45,47,051	2,16,07,012	1879-80 ...	Imports ...	1,28,26,109	30,07,335	1,58,33,444
	Exports ...	1,72,11,459	43,60,070	2,15,71,529		Exports ...	1,33,04,883	33,17,680	1,66,22,563
1874-75 ...	Imports ...	1,81,50,313	21,71,896	2,03,22,209	1880-81 ...	Imports ...	1,30,63,586	52,56,717	1,83,20,303
	Exports ...	1,69,16,224	28,40,892	1,97,57,116		Exports ...	1,32,59,182	55,96,886	1,88,56,068
1875-76 ...	Imports ...	1,72,59,681	24,09,141	1,96,68,822	1881-82 ...	Imports ..	1,06,59,569	29,69,199	1,36,28,768
	Exports ...	1,63,72,272	29,91,753	1,93,64,025		Exports ...	1,11,24,083	30,80,843	1,42,04,926
1876-77 ...	Imports ...	3,02,01,506	59,70,693	3,61,72,199	1882-83 ...	Imports ...	1,26,75,054	45,36,538	1,72,11,592
	Exports ...	2,66,50,099	66,04,278	3,32,54,377		Exports ...	1,34,61,406	47,52,832	1,82,14,238

[77] EXPORTS AND IMPORTS UNDER INTERPORTAL TRADE.

Articles.		Exports.		Imports.	
		Quantity.	Value.	Quantity.	Value.
			RS.		RS.
Grain and Pulse	Cwt.	868,604	21,92,603	872,621	21,75,361
Cotton, Manufactures	Yds.	6,207,789	13,35,565	6,967,809	15,08,343
Piece-goods	No.	123,925	73,023	158,981	86,085
Twist and yarn	lb.	2,115,785	13,88,169	2,155,818	14,24,776
Seeds	Cwt.	70,073	3,12,217	61,150	2,81,757
Oils	Gals.	315,859	3,25,728	332,686	3,40,858
Spices	lb.	7,463,825	13,21,594	7,681,627	13,60,331
Provisions	Val.	...	2,65,678	...	2,54,750
Metals	Cwt.	23,617	1,71,977	24,543	1,82,816
Sugar	„	207,420	8,77,768	204,772	7,36,990
Jute and manufactures of	Val.	...	2,68,875	...	3,11,199
Tobacco	lb.	2,664,277	2,62,500	2,625,750	2,46,424
Fruits and vegetables	Val.	...	2,53,634	...	1,16,746
Hides and skins	Cwt. / No.	31,085 / 565,662	9,71,094	34,856 / 640,335	10,75,256
Timber and manufactures of	Val.	...	1,81,469	...	2,05,075
Dyeing and colouring materials	Cwt.	22,767	1,89,847	23,360	1,95,893
Coffee	„	19,447	6,11,238	26,710	8,54,717
Liquors, spirits	Gals.	31,878	1,79,629	18,639	1,04,258
Coir and rope	Cwt.	15,080	96,535	8,683	51,454
Wool manufactures	Val.	...	97,929	...	89,092
All other articles	„	...	8,98,419	...	13,08,002
Total ...		...	1,22,75,491	...	1,29,20,183
Government Stores ...		...	3,99,563	...	5,41,223

EXPORTS AND IMPORTS OF TREASURE UNDER INTERPORTAL TRADE.

—		Gold.	Silver.	Total.
Exports ...	Private	44,281	27,38,551	27,82,832
	Government	...	19,70,000	19,70,000
Imports ...	Private	44,187	32,72,351	33,16,538
	Government	...	12,20,000	12,20,000

the Presidency are represented in 1882-83 by imports Rupees 45,36,538 and exports Rupees 47,52,832.

485. SHIPPING COASTING TRADE.—The total number and tonnage of vessels which entered and cleared at all the ports of the Madras Presidency from British ports in other Presidencies and foreign ports in India with cargoes and in ballast during a recent period of thirteen years have been as indicated below.[78] These figures are exclusive of the coasting trade within the Presidency. It will be seen that during recent years while the number of vessels remains almost stationary the tonnage has nearly doubled. In 1882-83 there was a decrease both in the number and tonnage.

486. THE SAME BY DISTRICTS.—The share of each district in the coasting trade has been as shown below [79] for the year 1882-83. The shipping for Malabar and South Canara consist almost wholly of sailing vessels which carry on an extensive trade with Bombay. Details of the nationality of the above vessels for 1882-83 are shown below.[80]

487. THE SAME SAILING AND STEAM.—The shipping engaged in the coasting trade within the Presidency during the year 1882-83 is represented by the figures indicated below.[81]

[78] SHIPPING COASTING TRADE.

Years.	Vessels.	Tons.	Years.	Vessels.	Tons.
1870-71	9,567	1,524,914	1877-78	12,382	3,757,878
1871-72	10,443	1,607,092	1878-79	11,493	3,524,921
1872-73	11,499	1,762,447	1879-80	11,499	3,606,792
1873-74	10,576	1,874,472	1880-81	11,316	3,748,474
1874-75	10,600	2,483,314	1881-82	11,133	3,805,586
1875-76	10,908	3,097,235	1882-83	10,978	2,116,800
1876-77	12,362	3,402,590			

[79] SHIPPING COASTING TRADE BY DISTRICTS.

—		Vessels.	Tons.	—		Vessels.	Tons.
Madras	Entered ...	198	214,994	Tanjore	Entered ...	88	48,683
	Cleared ...	167	234,361		Cleared ...	139	71,914
Ganjam	Entered ...	138	181,631	Madura	Entered ...	55	6,081
	Cleared ...	170	213,888		Cleared ...	9	1,073
Vizagapatam ...	Entered ...	23	10,182	Tinnevelly ...	Entered ...	63	62,316
	Cleared ...	38	18,986		Cleared ...	66	76,015
Godavery	Entered ...	123	79,642	South Canara ...	Entered ...	1,658	99,060
	Cleared ...	142	112,052		Cleared ...	1,684	93,951
Kistna	Entered ...	7	736	Malabar	Entered ...	2,781	323,516
	Cleared ...	35	8,012		Cleared ...	3,315	222,278
Nellore	Entered ...	...	...				
	Cleared ...	8	4,343	Total ...	Entered ...	5,157	1,031,081
South Arcot ...	Entered ...	23	4,240		Cleared ...	5,821	1,085,719
	Cleared ...	48	28,846				

[80] NATIONALITY OF ABOVE VESSELS.

—		Vessels.	Tons.	—		Vessels.	Tons.
British	Entered ...	534	752,592	Native craft ...	Entered ...	4,060	154,866
	Cleared ...	549	787,231		Cleared ...	4,694	182,303
British Indian ...	Entered ...	121	76,719				
	Cleared ...	165	84,200				
Foreign	Entered ...	442	46,904	Total ...	Entered ...	5,157	1,031,081
	Cleared ...	413	31,985		Cleared ...	5,821	1,085,719

[81] SAILING AND STEAM.

—		Sailing.		Steam.	
		Vessels.	Tons.	Vessels.	Tons.
British ports within the Presidency	Entered.	11,766	460,479	1,627	2,190,912
	Cleared.	11,704	450,725	1,645	2,217,037

(d) *Inland Trade.*

488. NATURE OF INFORMATION.—The matter given hitherto has dealt with sea-going trade. Inland trade is by far the most considerable, inasmuch as the bulk of production is consumed in the country, and even interportal trade on the long seaboard plays but a subordinate part in distribution. As regards inland trade however the only statistics available are :—(i) the returns of exports and imports of goods passing to and from the foreign European settlements of Yanam, Pondicherry, Caricaul, and Mahé; (ii) the returns of trade with the native states of Hyderabad and Mysore; and (iii) the traffic returns of the Madras and South Indian Railways. The returns of trade with the foreign European settlements are compiled by the special establishments maintained at the frontier stations for the purpose of levying duty, &c., and forwarded to the Collector's office, where they are put together by the ordinary establishments and submitted to the Board of Revenue in certain forms prescribed by the Government of India similar to those for sea-borne trade. These returns are tabulated in the Board's office and forwarded to the Government of India monthly. The land traffic with the native states of Mysore and Hyderabad has been registered since December 1880. The registration is effected by a small establishment maintained for the purpose at all the principal stations on the frontiers, through which the bulk of the trade usually passes. Monthly returns of the traffic thus registered are submitted by Collectors to the Board of Revenue, where they are tabulated and forwarded to the Government of India in the Department of Revenue and Agriculture. There were formerly returns of trade with Travancore across the Tinnevelly frontier, but these were discontinued in 1880, as the proportion of Travancore land-trade to Travancore sea-trade was held not to be large enough to warrant the expense. The returns of the traffic by the Madras and South Indian Railways for each half-year are received by the Board from the Consulting Engineer for Railways and transmitted to the local Government for information. In Vol. II, App. LXXXIX is given a statistical return of industries in the Presidency.

(e) *Traders.*

489. NUMBER AND DESCRIPTION.—According to the classification adopted in the census of 1881, the total mercantile male population in the Presidency, including Poodoocottah and the Agency Tracts, amounted to 186,170, sub-divided into mercantile men (78,268) and other general dealers (107,902). This will relate almost wholly to inland trade. The trading population in 1871 was returned at 540,273, but the classification then carried out was not on the same principle as that followed in 1881; and there are so many difficulties attending a definition of the term, that the numbers cannot be said to be of much value in either case. The following are a few of the chief trading occupations of the Presidency :—arrack-sellers, bangle-sellers, fish-sellers, cloth-merchants, cattle-dealers, bankers and money-lenders, oil-mongers, salt merchants, indigo-dealers, leather merchants, wood and charcoal dealers. A great majority of the merchants and bazaar-men are general dealers, and their shops supply the usual requirements of the community. All castes and classes of the people are traders, though certain branches of the trade remain chiefly in the hands of the Chetty or trading castes. Traders are most numerous in the northern coast districts and the town of Madras and fewest in South Arcot, Salem, and Trichinopoly. The chief trading caste is the Chetty, of whose male population as many as 42 per cent. are engaged in trade. Next are the fisherman and toddy-drawing castes, who have respectively about 3 and 5 per cent. of their numbers occupied in trade and commerce. The mixed class of Mussalmans, known as Lubbays and Moplahs, are petty traders to a large extent, and indeed all the divisions of Mahomedans seem to furnish a larger number of traders than the Hindoos.

(f) *Law.*

490. NATURE OF THE SUBJECT.—The subject of mercantile and trade law is too extensive to be treated here. There is less occasion to do so, as the legal

arrangements for buying, selling, and transmitting commodities are much the same among all civilized countries. Mercantile law constitutes a considerable section of civil law; as for instance under the heads of partnership, debtor and creditor, joint stock companies, principal and agent, shipping, bills of exchange, contracts, insurance, and many others. Trade is also affected by the law relating to weights and measures, currency, adulteration, &c. Special trades are controlled by special enactments. Reference must be made to the law at large.

MANUFACTURES AND INDUSTRIES.

491. INTRODUCTION.—About manufactures little is known officially except from the census returns. In 1881 there were 742,737 males engaged in the manufacture of textile fabrics and dress, of whom nearly three-fourths were weavers. About 70,972 persons were workers in skin and leather; and about 19,288 were tailors. The great bulk of the people of India do not indulge in clothing that requires the aid of a tailor to shape and sew it, but some of the better classes of both sexes wear cut jackets; hence the small number of tailors, compared with the numbers engaged in making shoes, or coverings for the feet. The produce of the Indian looms is not exported now to any great extent. In former days the chintzes of Masulipatam enjoyed a great celebrity abroad. They were celebrated for the freshness and permanency of their dyes, the colours being brighter after washing than before. There is still a small demand for these articles in Burmah, the Straits, and the Persian Gulf; but Manchester goods have nearly driven the Indian exporter out of the field. The home-made cloths however still hold their own in competition with British goods. There is nothing corresponding to the cotton and jute mills of Bombay and Calcutta. After weaving, working in metals appears to be the most widespread native industry. This is almost the exclusive employment of certain divisions of the artizan castes. In 1881 of a total of 151,414 males engaged in labour connected with the metals, about 90 per cent. of the whole were members of the Hindoo artizan castes. The metal-workers formed about one per cent. of the entire male population. Blacksmiths or iron-workers were in 1881 52,235 in number; gold and silver smiths 76,469; brass and copper smiths 17,798 and workers in tin 224. There are a few other occupations under this heading, as "engravers," "platers," "wire-drawers," "knife-makers," &c., but the numbers so engaged are insignificant. Repeated efforts have been made by English capitalists to introduce European methods of smelting iron in various parts of the Presidency, but hitherto these attempts have been uniformly unsuccessful. The simplicity of Hindoo domestic life is especially noticeable in the furniture of their houses. As a rule, no house contains either chairs, raised seats or tables, and the people sit and sleep either on the bare floors, or on mats or carpets. 144,131 persons are returned by the census as engaged in occupations connected with the manufacture of household goods, or about one per cent. of the males. Of this number, upwards of 50,000 manufacture earthenware pots for holding water and cooking food, while about 16,000 weave baskets and rattan work. In some districts the people use cots of wicker work to sleep upon. The weaving of mats gives employment to upwards of 3,000 persons. Almost the only example of a remunerative English factory at the present day is the Aska Sugar Works in Ganjam, which manufactures sugar for export, and rum and rice-spirit for local consumption. The produce of this factory has repeatedly obtained honourable mention at exhibitions in Europe. Among local specialities which have attracted European curiosity may be mentioned the jewellery of Trichinopoly, the manufacture of ornaments and knick-knacks of ivory and horn at Vizagapatam, and the carving of sandalwood in Canara. Though there is very little official information, an attempt will now be made to give some detail regarding the nature of the principal manufactures and industries of the Presidency obtained from various sources. Such industries will be omitted as are dealt with separately in this volume, as being the subject of special administrative machinery. The Index and Glossary contains brief descriptions of all the minor plants, &c., of the Presidency furnishing useful products; given under their technical, English, and native titles.

492. Description of the Manufactures and Industries—*Basket-work.*—Baskets are made of bamboo, palm leaves and various varieties of rattan and cane as in other parts of India. On the west coast very durable baskets are constructed from the leaves of the screwpine (Pandanus odoratissimus), and at Poolicat, twenty-five miles north of Madras, baskets, plain or coloured, are made by plaiting the leaves of the palmyra (Borassus flabelliformis), and also of rattan. The workmen have begun to substitute aniline colours for their own permanent dyes, which is to be regretted. *Brass.*—The metal used is an alloy of copper and tin and is therefore not really brass but bronze. In Tanjore and Madura weapons were formerly carved in metal with great skill, and the art is not yet extinct. A favourite process is to cover the brass ground with figures or designs in copper or silver, apparently hammered and dovetailed on to the brass. A somewhat similar manufacture is found at Tripatty, where coarsely executed articles are made for sale to the pilgrims visiting that shrine. The contrast between the bright silver ornamentation and the darker brass ground is striking and effective and becomes heightened by age. The designs are mythological with subordinate floral ornamentation. A number of brass and copper utensils thus ornamented were sent to the late Calcutta International Exhibition in 1883-84, where they attracted great attention and commanded a ready sale. *Breweries.*—The only breweries in the Presidency are on the Neilgherry hills. The license of the Llangollen Brewery at Marlemund near Ootacamund was withdrawn in October 1883. The Neilgherry Brewery, Ootacamund, has a contract to supply beer to the troops, and in 1883 paid excise duty upon 75,526 gallons of ale and 42,768 gallons of porter. *Bricks and tiles.*—In all parts of the Presidency tiles and bricks of an inferior quality are manufactured, but on the west coast a superior description of tiles has been introduced by the Basel Mission. In the district of South Canara there are numerous tile and brick factories, of which seven make tiles by machinery. The Basel Mission tile and brick factory has recently been fitted with patent gas kilns, and last year turned out 25,043,600 lb., valued at Rupees 1,41,841. *Carpets.*—Warangal, situated 112 miles north-east of Hyderabad, has been long famous for its silk carpets, but it also makes carpets in cotton and wool. The tints are bright, without interfering with the harmony of the colours. Ellore, in the Godavery district, also makes woollen carpets. Cotton carpets are made at Adony and elsewhere in the Presidency. In the Vellore and Salem central jails much attention has for a length of time been given to the manufacture of woollen carpets, and the goods turned out, especially at Vellore, are readily sold at high prices in the London market. Large quantities of durrees or cotton rugs of beautifully coloured patterns are made in the Vellore jail. *Cloths.*—Amongst the Hindoo population everything connected with clothing is more or less regulated by the laws of caste, so that articles of this class possess almost an ethnological interest. The brilliancy of the colours in native cloths and their general arrangement give a result which while unbecoming to fair skins, is suitable to those of darker complexion. Cloths are mostly the product of native looms. In many cases, European fabrics owing to their cheapness have begun to drive out the native manufactures. Arnee muslin is exceedingly fine, and would be styled in Europe a gossamer texture; but it is now very rarely made. The bleaching process in this case occupies about a month, and when a piece of pure white Arnee muslin is immersed in water it can with difficulty be seen. A similar fabric was formerly made in the Nellore and Godavery districts, but the industry is now almost if not entirely extinct. *Condiments.*—Living mostly on a vegetable diet, and often consuming large quantities of crude substances, the natives of India seek to give a zest to their diet by the use of pungent and aromatic condiments. To a native of India nearly every meal contains a curry, and a pungent decoction, known as pepper-water, is drunk when a curry cannot be had. The Hindoo uses much ghee or clarified butter, and is content for a condiment with strong pepper and cayenne. The Mahomedan uses a much greater variety of condiment, in the form of chatnies, pickles, &c. *Cotton.*—The cotton grown on the black and red soils of this Presidency is for the most part pressed into bales and shipped to Europe. There are thirty-one presses in the Presidency, situated chiefly at Tuticorin, Coimbatore, Bellary and Goontoor. In Madras there are four mills at work, and there is one mill at Bellary. These five mills work up more than 3,500 tons of cotton each year

and turn out yarn, &c., valued at more than Rupees 18,00,000. *Drugs.*—The drugs used in the Presidency will be found enumerated in the Glossary and Index. The list is so lengthy that no attempt can be made to compress it within limits suitable for insertion here. *Dyeing and colouring.*—The plants in Southern India from which dyes are obtained are very numerous. Among these are Indigofera tinctoria, producing the indigo of commerce, which is very extensively cultivated in Cuddapah, the Kistna, Vizagapatam and other districts. The brilliant scarlet dye which characterises the Masulipatam cloths is derived from chayroot (Oldenlandia or Hedyotis umbellata), and in other districts a scarlet dye is obtained from Rubia cordifolia. The palampore, as its name implies, is intended for a bed cover, and some specimens of the older palampores are very artistic, both as regards the composition of their complex patterns and their coloring. In some cases the figures are printed on the cloth with wooden blocks, but all the finer palampores are prepared by stencilling and hand-painting. The stencil plates are made of stout pieces of paper. On these the outlines of the pattern are first traced in ink, and then perforated with minute holes in the most accurate manner with a fine needle. The stencil is then complete, and when in use is placed on the cloth and covered with charcoal in very fine powder, which is rubbed so as to make it pass through the minute perforations and leave a tracing. The rest of the work is done entirely by hand, and thus considerable scope is given for the exhibition of individual taste in the selection and grouping of colours. A class of palampore made in the Calastry Zemindarry contains mythological scenes and full descriptions of these in the vernacular. *Embroidery.*—The work of this kind done in South India is chiefly carried on by poor Mahomedans, and the industry seems to have been introduced by them. Some of the more costly styles, such as gold embroidered silk and velvet, can only be got to order, and as there is little demand for such expensive articles, the art may, it is to be feared, die out. *Fibres and their preparation.*—Southern India is particularly rich in fibres suitable for the manufacture of textile fabrics, ropes or paper, but as yet these fibres have not secured a place in commerce. Much attention was given to the subject when the Crimean war shut out Russian hemp from Britain. The best known among fibres are the following: Abutilon Indicum, country mallow; Agave vivipara, aloe; Boehmeria nivea, China grass; Cannabis sativa, Indian hemp; Crotalaria juncea, sunn hemp; Fourcroya gigantea, large aloe; Hibiscus cannabinus, hemp; Musa paradisiaca, plantain; Musa textilis, Manilla hemp; Pandanus odoratissimus, screwpine; Sanseviera Zeylanica, bowstring hemp. The fibres are prepared by hand labour, and their commercial value is lessened by the want of care and of cleanliness in the process, which is usually by maceration in water and beating and scraping. The great desideratum is some simple and efficient machine which will extract the fibre cheaply and ensure a constant supply for export. Many efforts have been made to meet this want, but all from one cause or another have ended in failure. The only fibre now exported in any quantity is coir, the outer husk of the cocoanut. The exports of this from Madras ports to foreign countries in 1882-83 amounted to 113,512 cwt., valued at Rupees 9,92,987. *Gum.*—Gum is an exudation from very many plants, the best known being that of the Acacia Arabica, the gum arabic of commerce, but the gum from other trees is often exported under that name. In addition to gum properly so called, which is soluble in water, are other substances such as caoutchouc, the produce of Ficus elastica and other trees, gutta-percha derived from Isonandra gutta, and resins of various sorts. *Hides and skins.*—The tanning and export of skins have of late years become very large industries in South India, and Madras leather is well known and highly appreciated both in European and American markets. In fact South Indian skins fetch so much higher a price than those shipped at other ports in India, that salted hides are sent from Bengal to be tanned and exported from Madras. The superiority of the Madras leather is partly due to the fine quality of the bark used for tanning it, and partly to the superior methods of manipulation. The bark is obtained from a small shrub (Cassia auriculata), which grows wild all over the country, and is in great demand. During 1882-83 there were exported from Madras 1,737 cwt. of raw skins and hides worth Rupees 93,524 and 193,647 cwt. of tanned skins and hides of the value of Rupees 1,83,95,705. The majority of these skins are sent to Great Britain, Austria,

and the Straits Settlements; but Italy and the United States are also customers. *Honey.*—The hive bee of Europe (Apis mellifica) is unknown in South India. There are four species of wild bee which attach their combs to branches or place them in crevices of rocks or ruins. Apis Indica and Apis floralis are migratory, moving especially to localities where any plants of the strobilanthes genus of acanthaceæ are in flower. Apis nigrocincta remains on the same spot throughout the year. A small variety of this species is known as the "Mosquito bee," frequenting the plains and low rocky hills throughout the Presidency. The quantity of honey in its nest is small and is not of good quality. The fourth species is Apis dorsata with its varieties testacea and zonata. This is the rock bee, and is twice as large as Apis Indica. The honey is collected by jungle tribes who are familiar with the localities which the swarms frequent and refuse to quit. This bee attacks men and animals with much ferocity and its sting is very severe, ten to twenty stings being dangerous to human life. South Indian honey itself is sometimes, owing to the plants from which it is collected, poisonous; and Xenophon's story of the peculiar effects of the article on the soldiers of the army of the ten thousand will be recalled. *Horn manufactures.*—Ornamental articles are neatly executed in horn at Vizagapatam, but they have no sale in England, being surpassed in cheapness and workmanship by articles of German manufacture. The horns and antlers of samber and the smaller varieties of deer along with those of the antelope, buffaloe and ox are exported from Madras to Europe. In 1882-83 the amount thus exported was 9,080 cwt., valued at Rupees 2,28,309. *Ivory.*—The best ivory paintings in this Presidency are from Trichinopoly. Ivory is sawn up into very thin plates which are carefully seasoned and pressed that they may not curve, and are finally polished. The painting when finished is protected by a very thick but clear glass, smoothed off at the edges like a pebble. The work is always executed either in colour, which is generally soft, rich, and effective, or else in Indian ink, mere light and shade. These latter are often pleasing, especially in the landscape subjects, for then the conventional treatment of the trees and sky becomes less prominent than in the coloured ones. Vizagapatam also furnishes ivory articles usually ornamented with black scroll work, either simply etched or engraved. The workmanship and finish are superior, and the articles are much in demand as drawing-room ornaments, for which they are well suited. *Jewellery.*—Personal ornaments worn by the poorer classes, and hill and jungle tribes, are frequently of interest, not only on ethnological grounds, but also on account of the artistic value of the specimens. The originality and grace of some of the patterns is remarkable, and much skill is shown in converting common materials to these purposes. As in the case of clothing, however, the progress of civilization tends to extinguish the archaic types of personal ornaments. *Jute.*—Messrs. Arbuthnot and Company have a factory at Chittivalasa near Bimlipatam in the Vizagapatam district which worked up last year more than 1,800 tons of jute. Some of this was brought from Calcutta by sea, but the local supply increases each year and it is hoped that before long the supply will be drawn entirely from the district. *Mats.*—Various substances are used in this Presidency for making floor mats, such as bamboo, palmyra leaf, grass, and rattan. The palmyra leaf mat is cheap and coarse, and is turned to a variety of uses. The bamboo mat when made of the outer smooth covering or skin of the reed makes a clean, cool, cheap, and durable floor covering. The mat most used for floors is that made of rattan, which possesses in an eminent degree all the properties required for an article of this kind in a tropical climate. The rattan used in this manufacture is a ground-cane (Calamus), imported into Madras from the Straits. A coarse grass mat made at Vellore is sometimes used for stairs, &c., but is not durable. The beautiful Tinnevelly and Palghaut (Malabar) mats are made of the split stems of a species of cyperus. They are very strong and durable, pleasant and cool to lie on, and remarkable for their quiet colours and peculiar patterns. The other coloured mats of this kind are from Shiyally, Vellore, &c., but are of inferior material and manufacture. Sleeping mats are also made of the leaves of the screwpine (Pandanus odoratissimus). These when double afford very good protection from damp to a person sleeping on the ground. Coarse and cheap mats, made from the palmyra leaf (Borassus flabelliformis) and the wild date palm (Phœnix farinifera) are the kinds used for sleeping on by the poorer natives. Kus-kus mats are made of the

fragrant roots of a grass (Andropogon muricatum), and are hung up in doors and windows during the hot season and kept constantly wet. The current of air passing through the mat in this state is cooled and moistened, and carries with it into the room the pleasant odour of the grass. Kus-kus is also made into fans. When dry it yields but little smell, but when wetted the odour is very strong. *Oil.*—The manufacture of cocoanut-oil is an important industry in the Madras Presidency, the exports in 1882-83 amounting to 2,159,285 gallons, of which 50,988 gallons went to the United Kingdom, 183,342 gallons to Germany, 72,095 gallons to Austria, 69,620 gallons to France, 5,734 gallons to the United States, and 4,216 gallons to Italy. 908,848 gallons were sent to Bombay chiefly for lighting, but its use for this purpose will probably diminish as the use of kerosine oil and gas extends. Other fixed oils exported are gingelly, castor and groundnut, but very much more might be exported as immense quantities of the seeds are shipped to Europe for the manufacture of oil there. This is an especial feature of the trade from Cocanada and other northern ports, the large shipment of oil-seeds creating the great demand for jute sacking at the Chittivalasa factory. Messrs. Simson Brothers of Cocanada have introduced machinery at Goontoor for the expression of castor-oil from the seed of Ricinus communis, and their example is likely to be followed. The gingelly-oil is obtained from the seeds of Sesamum Indicum, one of the pedaliaceæ. It is a bland and wholesome oil and is largely used by some natives as an article of food. Groundnut-oil is the produce of Arachis hypogæa, a leguminous plant introduced from South America. It thrives best on sandy soil, and the pods at a certain stage bury themselves in the earth, where they ripen their seeds, whence the name ground-nut or earth-nut. These two seeds, gingelly and groundnut, are exported to Europe for the manufacture of "olive-oil." In South Canara oil is distilled from the sandal wood, and there are several minor varieties of oil locally manufactured, as, for instance, at Condaveed in the Kistna district, where a fragrant oil is obtained from jasmine and other flowers and sent for sale at Hyderabad. *Paper.*—Paper is manufactured in the districts of Madras, Chingleput, Godavery, North Arcot, Madura, Cuddapah, Tinnevelly and Coimbatore. The manufacture is for the most part done by hand, and the process is therefore rude and the paper made coarse. The materials used in the manufacture are chiefly waste paper, old rags, gunny bags, hemp and aloe. Plantain leaves are also used in some places. There are other materials available, from which good paper can be made, such as cotton, rice straw, bamboos, refuse of sugar-cane, and grasses of various descriptions, but they are not used for want of suitable machinery. The Stationery Department purchases from the manufacturers at Madras about 7,000 reams annually, and the papers so purchased are used for covers chiefly. There is no prospect of the manufacture improving until machinery is introduced and manufacture is undertaken on a large scale. There are 124 small paper-mills in the Presidency which turn out 151,228 cwt. of inferior paper annually. *Pottery.*—Some of the vessels found in ancient cairns and cromlechs in Southern India are of great size and excellent finish. One in the Madras Museum is 3 feet 6 inches in depth and 8 feet 9 inches in circumference at the bilge. The clay of which this antique pottery is made is of very superior quality and the articles are often varnished and incised with linear patterns. In modern pottery no great excellence has been reached as the Hindoo will not use a defiled vessel and it is not desirable to incur expense in the manufacture. The vessels are usually of porous ware. In North Arcot some have been made with a green glaze in shapes imitated from delftware and other European manufacture. The pottery made at the School of Arts in Madras is dense and heavy ironstone China. At Panrooty in South Arcot figures of coarse China are manufactured. *Silk industry.*—The chief wild silk-producing insects of Madras are the Tusser, the Actias selene, and Cricula trifenestra. The Tusser silk is produced by the moth Antheræa mylitta, and is the most common and most important of the three. The Actias feeds on the Odina wodier, and its cocoons, which are of an oblong and irregular shape and pale yellow colour, are each enclosed between two leaves. So far as known the silk is not windable, but seems of fair quality. The Cricula is gregarious in habit, its cocoons being found in large clusters, partially enveloped with the leaves of the tree Careya arborea on which it exists. The cocoons are

composed of a net-work of golden-coloured fibres, through which the chrysalis can be seen. According to Wardle this silk promises to be most useful. The Tusser-silk moth, although widely distributed over the Madras Presidency, is not very abundant, and consequently its cocoons have never been collected for commercial purposes. It feeds chiefly on the Zizyphus jujuba, a common tree in dry jungles, and is also found on the Casuarina equisetifolia, an introduced tree, Terminalia catappa and Eugenia jambolana. The commercial importance of Tusser silk has been much increased of late, owing to European improvements in reeling, and the discovery that it can be bleached, dyed, and printed with various shades of colour. It is also possible to utilize the pierced cocoons, by teasing out and spinning the fibres like cotton or wool. *Spices.*—In addition to the spices used in the country there is a large export of spices from Southern India. The latest export statistics are as follows, the figures indicating quantity and value:—Betel-nut lb. 3,430, Rupees 436; cardamoms lb. 89,807, Rupees 2,38,036; cinnamon lb. 22,132, Rupees 9,518; cloves lb. 286, Rupees 139; ginger lb. 1,772,369, Rupees 3,26,651; nutmegs lb. 151, Rupees 98; pepper lb. 7,509,919, Rupees 18,60,957; other sorts lb. 4,425,387, Rupees 2,59,684; total lb. 13,823,481, Rupees 26,95,519. *Sugar.*—Sugar or jaggery is manufactured from the produce of the following acreages: under cane, 69,383; cocoa palms, 5,706; palmyras, 24,884; date palms, 1,575; sago palms, 19. In 1882-83 the exports to foreign countries included 13,219 cwt. of refined sugar and 1,119,930 cwt. of unrefined sugar. The ordinary jaggery is made by a rough process, the canes being crushed in a wooden roller mill and the juice boiled in dirty utensils; but refined sugar of a superior quality is manufactured by Messrs. Parry and Company and by a native manufacturer in South Arcot who follow the usual method of boiling in vacuo, and also by Messrs. Minchin Brothers and Company of Aska in Ganjam who have adopted the method of diffusion. *Weaving.*—The cloths woven in this Presidency formed a considerable item in the trade which the East India Company carried on in past centuries, and the export of the brilliantly-dyed cloths from Masulipatam continued until the abolition of slavery in the West Indies, when the Negresses refused to wear the red cloths. This export has now dwindled to small dimensions and is chiefly to the Persian Gulf. The hand-woven cloths made in many villages throughout the Presidency have been very much superseded by the cheaper machine-made European goods, but are still purchased by those who can afford to pay the price for them and are much more durable. The famine of 1877 was severely felt by the weavers as all demand for their goods ceased, but the census shows that their numbers did not diminish. *Wood-work.*—The wooden toys made at Condapilly and elsewhere in the Presidency are made of the same light wood that the Madras boatmen use for their catamarans, the wood of Gyrocarpus Asiaticus. *Wool.*—The wool produced in Southern India from the native breed of sheep is of very coarse quality and chiefly employed for making cumblies, a rough kind of blanket largely used by the natives. Attempts have been made to improve the breed of the white-wooled country sheep by crossing with Australian, Merino, and other rams. These crosses thrive best in the higher districts of the peninsula, such as Coimbatore and the tableland of Mysore, where the temperature is somewhat cooler and forage more abundant than on the plains. In Mysore many of the sheep have foreign blood in them, and for a series of years the Madras Government endeavoured to improve the breed of sheep in the districts of Salem, Coimbatore, North Arcot, and Bellary by the distribution of superior rams. Although these efforts have improved to some extent the quality of the fleece, they cannot be said to have given any impetus to sheep-breeding, as in 1881-82 the total exports of wool from this Presidency only amounted to lb. 868, of the value of Rupees 220. In some districts, such as Ellore, the finer qualities of wool are used for making carpets of oriental patterns. These are mostly made on commission for European dealers, who secure them through their local agents. The exports for 1882-83 were 26,238 lb., valued at Rupees 5,173.

493. LAW.—Some trades are regulated by laws common to all parts of the Queen's dominions, as for instance, the law of copyright and patents, and other trades are restricted by laws common to all India, such as the Arms Act, the Factories Act—sections 269 to 294 and 482 to 489 of the Penal Code. Certain

trades are regulated by special laws for fiscal purposes and these include the manufacture and sale of liquor and the manufacture of salt. The transit of timber is regulated by rules issued under the Forest Act and there are provisions affecting special trades in the Municipal Acts, the Breach of Contract by Workmen Act, the Hackney Carriage (Madras) Act, the Coffee Stealing Act and the Petroleum Act. The rules having the force of law on the subject are given in foot-note [1] below.

494. STATISTICS.—The table at foot [2] shows the number of institutions and workmen, with value of stock and outturn, constituting the manufacturing interest of the Presidency. The value of stock and estimated annual outturn have not been given in some cases, information not being available. In Vol. II, App. LXXXIX is given a more complete statistical return of industries in the Presidency.

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[1] RULES HAVING THE FORCE OF LAW IN RELATION TO MANUFACTURES:—Under India Act XV of 1881, sections 3 and 18 (Factories Act), the following have the force of law:—Section 3—Appointment of certain officers to be Inspectors of Factories—Fort St. George Gazette, 1st April 1882, page 199. Section 18—(1) Revised Rules—Judicial Notification, Fort St. George Gazette, dated 15th August 1882, page 429. (2) Amendment of Rule 22—Judicial Notification, Fort St. George Gazette, 28th November 1882, page 700.

[2] STATISTICS OF MANUFACTURES AND INDUSTRIES.

—	Class of manufactures.						
	Silk.	Cotton.	Wool.	Other fibres.	Lace.	Ivory.	Leather.
Number of mills and large factories ..	..	33	..	16	..	..	20
Number of private looms or small works.	3,410	261,247	8,593	8,152	24	9	8,317
Number of workmen in large works. Males ..	..	3,169	..	750	..	..	220
Number of workmen in large works. Females ..	..	2,186	..	530	..	..	14
Number of workmen in small works or independent artizans.	9,307	457,987	18,475	14,120	66	45	16,752
Number of European superintendents in large works.	..	26	..	8	..	..	..
Value of stock in do. Rs. ..	..	23,48,800	..	34,130	..	..	14,736
Estimated annual outturn of all works. lb. ..	114,397	57,683,520	2,049,470	4,989,954	130	..	4,019,115
Estimated annual outturn of all works. Rs. ..	15,60,330	2,90,59,365	8,34,353	2,06,800	12,400	9,000	7,84,450

—	Class of manufactures—(*Continued*).					
	Paper.	Building.	Wood.	Iron.	Brass and copper.	Gold and silver.
Number of mills and large factories ..	..	1	18	15	5	1
Number of private looms or small works.	124	14,311	29,282	19,413	5,708	17,670
Number of workmen in large works. Males ..	..	185	1,324	849	12	430
Number of workmen in large works. Females ..	..	90	20	12	..	..
Number of workmen in small works or independent artizans.	659	42,661	49,430	40,009	12,663	28,849
Number of European superintendents in large works.	..	2	11	14	..	2
Value of stock in do. Rs. ..	..	2,65,000	1,65,000	1,34,000	..	1,20,000
Estimated annual outturn of all works. lb. ..	150,988	..	119,536,917	22,084,254	3,853,885	103,964
Estimated annual outturn of all works. Rs. ..	21,519	1,36,15,088	66,23,399	26,61,415	17,19,458	1,09,66,850

—	Class of manufactures—(*Continued*).						
	Pottery.	Sugar.	Coffee.	Indigo.	Oil press.	Cotton press and cleaning machine.	Bone crushing mill.
Number of mills and large factories ..	..	4	27	63	..	5	1
Number of private looms or small works.	6,292	3,293	35	1,129	3,182	..	..
Number of workmen in large works. Males ..	..	1,168	1,578	1,558	..	178	10
Number of workmen in large works. Females ..	..	160	5,441	321	..	98	5
Number of workmen in small works or independent artizans.	18,345	12,593	172	5,454	6,410	..	..
Number of European superintendents in large works.	..	4	16	6	..	1	1
Value of stock in do. Rs. ..	..	50,000	6,70,800	1,66,397	..	2,20,000	1,500
Estimated annual outturn of all works. lb. ..	..	11,859,203	7,756,283	1,100,674	7,905,148	3,706,630	224,000
Estimated annual outturn of all works. Rs. ..	3,14,131	7,08,577	28,94,637	11,43,062	7,86,774	7,14,244	5,000

PUBLIC WORKS—PRELIMINARY.

495. CONSTITUTION OF DEPARTMENT.—As at present constituted [1] there are three executive branches of the Public Works Department: Buildings and Roads, Irrigation, and Railways, each having a Chief Engineer as its responsible executive head; and one General Branch. The senior Chief Engineer is in charge of the

—	Class of manufactures—(*Continued*).						
	Saltpetre manu-facturing pans.	Dyeing.	Paint-ing.	Tiles and bricks.	Wheat mill.	Mats.	Cement.
Number of mills and large factories ..	..	..	..	3	1	..	1
Number of private looms or small works.	836	54	63	191	..	669	..
Number of workmen in large works. Males ..	..	..	..	367	3	..	280
Number of workmen in large works. Females ..	..	..	..	92	10	..	70
Number of workmen in small works or independent artizans.	2,621	612	250	749	..	1,452	..
Number of European superintendents in large works.	..	..	..	3	..	..	1
Value of stock in do. Rs. ..	..	..	..	44,000	Not available	..	Not available
Estimated annual outturn of all works. lb. ..	435,940	8,120	..	..	57,600	933,601	120,000
Estimated annual outturn of all works. Rs. ..	35,454	25,467	15,000	1,05,135	7,200	21,594	12,000

[1] SKETCH HISTORY OF PUBLIC WORKS IN THE PRESIDENCY—*Introduction.*—The history of the department divides itself naturally into two periods—the period anterior to the formation of the regular Public Works Department in 1858 and the period subsequent to that date. (2) *The three departments prior to* 1858.—Previous to the year 1858, all public works were carried out and maintained by three distinct and independent departments—the Maramut department of the Board of Revenue, which had the control of all irrigation works and navigable canals, all civil buildings in the provinces, and all roads and bridges not under the "Trunk Road department," or not situated in military cantonments; the Trunk Road department under the Superintendent of Roads, which had the sole superintendence of the great lines of communication known as the "Trunk roads;" and the Engineering department of the Military Board, which had the superintendence of fortifications generally; of the roads, bridges, public buildings, both military and civil, at the Presidency town; together with all military buildings in the provinces, and roads and bridges in cantonments. By far the most important of these three departments was the Maramut department, which had practically the charge of the great majority of the public works of all kinds throughout the country, and on the efficiency of whose work was largely dependent the irrigation revenue of the Presidency. (3) *The Maramut department.*—At the commencement of British rule, the Collectors assumed the charge of the works of irrigation together with that of collecting the revenue; and, without the aid of professional assistants, expended annually considerable sums of money in the upkeep and improvement of the works. There was consequently unprofitable expenditure and waste of public money. Engineer officers were afterwards appointed, under the title of "Superintendents of Tank Repairs," to aid the Collectors; but for many years their numbers were too limited to be of much practical benefit. At first, there was only one such superintendent, in the year 1809 a second was added, and the principal irrigated districts were then divided between the two. In the year 1819, the territories of the East India Company in the Presidency were divided into three divisions, each under the charge of a "Civil Engineer," with a suitable establishment, and the whole was placed under the control of an Engineer officer at the Presidency, styled the "Inspector-General of Civil Estimates." This may be considered the date of the formation of the Maramut department. In the year 1825, the whole Maramut department, including the Inspector-General himself, was placed under the Board of Revenue; the Inspector-General having however the power to record his views, for the information of Government, when they differed from those of the Board. The department continued on this footing until the year 1836, when, with the object of giving the Board the benefit of the experience of the Chief Engineer, that officer was given a seat at the Board for matters connected with his subject. The office of the "Inspector-General of Civil Estimates" was then abolished, and a Public Works Engineer Secretary to the Board of Revenue was appointed, upon whom devolved all the administrative duties previously performed by the Inspector-General. In 1838, when the importance of the Maramut department from the point of view of the revenue of the country, and the necessity for strengthening it so as to cope effectually with the vast amount of work devolving upon it, was daily becoming more apparent, a further and more material change was made. The whole Presidency was re-arranged so as to form eight Maramut divisions, each under a "Civil Engineer;" and to these officers were, at the same time, transferred the construction and repair of all civil buildings in the provinces formerly under charge of the Engineering department of the Military Board, whose establishments were accordingly decreased, while those of the Maramut department were increased. On this footing the Maramut department remained, with the exception of minor changes in the strength of its establishment and arrangement of its divisions, until its abolition in 1858, but in 1845 its work was somewhat lightened by the transfer of the main lines of road to the "Trunk Road department." (4) *Mode of executing works under the Maramut department.*—Until the abolition of the department in 1858, the duties of the "Civil Engineers," and of the establishment employed under them, were confined to projecting works, preparation of plans and estimates, inspection and direction of works under execution, and the measuring up of works when finished, while the execution of the actual work on tanks, channels, roads, &c., rested with a separate establishment working under the orders of the tahsildars, and known as the "Revenue Maramut" establishment. In certain cases, works (such as large buildings) were carried out by the "Civil Engineers" and their establishment; but these were exceptional, and in the main the duties of the Maramut department proper were of supervision only. In the year 1852, the Maramut department numbered 24 officers of Engineers, besides 11 other officers of the line temporarily employed, 25 East Indian Surveyors or Assistants to the "Civil Engineers," and 23 European Overseers belonging to the Sappers and Miners; while a trained native maistry was attached to each "Civil Engineer." This constituted the whole of the trained supervising "Maramut department." The "Revenue Maramut" establishment working under the tahsildars (who were practically the executive officers by whom works were carried out) consisted of 12 "Superintendents of Maramut," or maistries of superior qualifications, trained by the "Civil Engineers," and transferred by them to the "Revenue Maramut" establishment; and 79 talook maistries, who were generally without any proper training or qualifications of any sort, and worked under the supervision of the "Superintendents of Maramut." The whole establishment, whether for supervision or execution of works, remained on this footing till the Maramut department was finally broken up. (5) *The Trunk Road department.*—This department was not constituted till the year 1845. Previous to that date, all roads, except those at the Presidency and in military cantonments, were first under Collectors and finally under the Maramut department

Buildings and Roads Branch, and takes in addition to his ordinary duties the work of the General Branch, which includes the promotion, posting, &c., of the members of the executive establishment for the whole department. The Chief Engineers perform in the following manner the secretariat work of their respective branches.

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of the Board of Revenue. As a measure of relief to the overworked Maramut department, and to ensure the systematic improvement of the main lines of road, the Trunk Road department was formed in 1845. This department appears to have been a failure for many years, owing to the inadequate subordinate establishment placed at its disposal. Its history can accordingly be briefly narrated. As at first constituted in 1845, it was placed under an officer, styled the "Superintendent of Roads," to whose charge was entrusted the formation, maintenance and repair of the main lines of road, extending in the aggregate to a total length of 2,300 miles; all other roads previously in their charge being still retained by the Maramut department of the Board of Revenue. The main lines of road were at that time in very bad order, had been for many years much neglected, and were generally unbridged and unformed. In 1846, the Superintendent proposed what he considered to be the necessary subordinate establishment required by his department, in order to carry out properly the actual execution of the work to be done on roads, for which an annual expenditure of four lakhs had been sanctioned. The establishment was refused, and the department, being unable to cope with the work required of it, and to expend the funds allotted to it, gradually transferred much of its work back to the Maramut department. In 1851, though the "trunk roads" were still nominally under charge of the Superintendent, their maintenance was attended to chiefly by the Maramut department; and only 390 miles of main road remained then actually under the charge of the "Trunk Road department." By 1853, the department had been strengthened, so as to keep up fairly with the work then expected from it, and the establishment of Europeans for the duties of superintendence numbered 29 in all, viz., the Superintendent, 6 Assistants, and 22 upper subordinates. (6) *The Engineering department of the Military Board.*—The Military Board of the Madras Presidency was formed as far back as the year 1785, and was divided into the Ordnance department and Engineer department, the latter only of which need be here mentioned. The engineering works under the Board were distributed in ten divisions, corresponding with the divisions of the army. Five of these divisions were controlled by Superintending Engineers, with executive officers and a suitable establishment of Overseer-Serjeants, &c., for the execution of works. In the remaining five divisions, there was no officer permanently under the orders of the Board, but the execution of works was undertaken by the Commanding or Staff officer. In 1838, simultaneously with the reorganization of the Maramut department in that year, the Superintending Engineers of the Military Board were abolished, the charge of all the civil buildings in the provinces, formerly under the Military Board, was transferred to the "Civil Engineers" of the Maramut department, while the charge of the military buildings was transferred to the Staff officers of stations, together with a portion of the establishments trained under the Superintending Engineers. The other works under the control of the Military Board, viz., the construction and maintenance of roads and bridges in military cantonments, &c., were also placed, at stations, under the Staff officer, and at division head-quarters under the Quartermaster-General of the division staff. By this reorganization of 1838, the Staff officers of stations practically became—though scarcely fitted for the post—the Executive Engineers of the Military Board. This system remained in force until the abolition of the Board in 1858. (7) *The Chief Engineer.*—Allusion has been made, in the sketch of the history of the Maramut department, to the Chief Engineer. The duties of this officer, prior to the formation of the Public Works Department in 1858, appear to have been of a varied character. Chief among them were that, besides being in immediate charge of certain works, and collecting certain items of revenue, he had two separate offices, besides his own office, to attend to, viz., the Public Works Department of the Board of Revenue and the Military Board Office. He had also control over all fortifications, he inspected all work done under the orders of the Military Board, he inspected all Government roads in the Presidency, and he prepared drawings, &c., of certain works. (8) *Formation of the Madras Public Works Department in* 1858.—In 1850, the importance of the systematic management and execution of public works throughout the Presidency had attracted the attention of the Court of Directors in England, and, under their orders, a Public Works Commission was appointed in the following year. This Commission issued, towards the end of 1852, a very full and particular account of the existing system of Public Works administration, and reviewed at length the working of the Maramut department of the Board of Revenue, the Trunk Road department, and the Engineer department of the Military Board. They pointed out the generally neglected state of the public works of the country, except in a few favoured districts; dwelt on the inadequacy of the annual grants allotted for public works, and on the inadequate establishments appointed to look after them; and brought to notice the benefits to be derived, by the State, from the systematic and judicious expenditure of public money in the promotion of public works. The Commission established the fact that the Board of Revenue was no longer able to deal with the business of the Maramut department, owing to the great and progressive increase in the works of this department, and the largely increased proportions of its establishment; they brought to light many abuses in the execution of works, and commented on the inefficiency of the executive establishment employed; and finally they pointed out that, where public works are scattered over a very large area of country as in the Madras Presidency, it was bad economy to have three separate establishments for the management of different classes of work, and recommended the establishment of one department for the management of all public works, civil or military. They proposed that the establishment just mentioned should consist of 13 Inspecting Engineers, and a District Engineer with a staff of assistants and subordinates for each Collectorate. At the time the Commission wrote, or in 1852, the entire cost of the Public Works establishment was Rupees 5,79,474 per annum, and the expenditure on works, Rupees 24,50,000. The proposals of the Commission involved an annual charge of Rupees 14,69,000 for establishment, and an annual expenditure of 48 lakhs. After discussion with the Home Government and the Government of India during the years 1853-57, an establishment was finally sanctioned in the year 1858, at a cost of Rupees 13,06,614, for the purposes both of supervision and execution of works, and thus, for the first time in its history, the department as a whole became an executive department. The sanctioned scale consisted of a Chief Engineer with an Assistant; 3 Inspecting Engineers; 20 District Engineers in immediate control of the executive officers; 78 Executive and Assistant Engineers; 204 upper subordinates, composed of Sub-Engineers, Supervisors and Overseers; and 714 lower subordinates or Sub-Overseers. This establishment supervised the public works of the whole Presidency, which was divided into 87 executive ranges. (9) *Further history of the department from* 1858 *to* 1863.—As a consequence of the mutiny, the expenditure on public works was much restricted, and a considerable part of the Public Works establishment sanctioned in 1858 was accordingly discharged in the year 1859. In 1860, it was considered that the organization of 1858 was unnecessarily elaborate, and had failed to answer the expectations formed of it. Various changes were advocated and considered, and, pending the consideration of these measures, the Chief Engineer was appointed Secretary to Government in the Public Works Department; the three Inspecting Engineers or Deputy Chief Engineers were temporarily vested with the powers of the Chief Engineer in their respective circles; and the question of the expediency of transferring the charges of the minor works of irrigation, and the district roads, to the Revenue Officers, was referred to the Board of Revenue, and eventually to the Chief Engineer and a Committee of Engineer Officers. In 1863, the question of the complete reorganization of the Public Works Department, so as to reduce the charge for establishment in accordance with the wishes of the Government of India, was referred to another Committee, upon whose recommendation the organization of 1858 was done away with, and the following radical changes in the administration of the department were made. The three Deputy Chief Engineers, and twenty District Engineers were abolished; and in their place were substituted eight Superintending Engineers, each with the full powers of a Chief Engineer in his division. The 84 Public Works ranges into which the Presidency was then divided were placed in charge of Executive Engineers, Assistant Engineers and upper subordinates, under the direct control of the Superintending Engineer, and it was determined that no ranges should in future be placed under the charge of lower subordinates as was formerly the practice, while the class of Sub-Overseers was abolished altogether.

The senior Chief Engineer is gazetted as Secretary to Government, Public Works Department. Each of the two junior Chief Engineers is gazetted as Joint Secretary for the particular executive branch of which he has charge. The note at foot shows the questions dealt with in each of the four branches.[2]

The Chief Engineer and Secretary to Government, Public Works Department, was divested of all the duties formerly performed by him in his capacity as Chief Engineer, except the allotment of funds, the preparation of budgets, and the promotion of subordinates. With regard to the question, originally raised in 1860, as to the expediency of transferring minor irrigation works to the Revenue Department, the Commission deprecated any general transfer of works to the Revenue Department, but urged that the law relating to "coodimaramut," or customary free labour of the people upon petty repairs of irrigation works, should be so modified, as to ensure the due enforcement of the obligation and enable Government to make the maintenance of minor works of irrigation devolve on those interested in them, in consideration of a partial remission of revenue. In accordance with this recommendation, the Government called for the opinion of the Board of Revenue and certain selected officers on the proposed modification of the labour law. (10) *Public Works Commission of* 1870, *and reorganization of the department in* 1872.—The next principal event in the history of the department was the appointment of a Chief Engineer for Irrigation in the year 1867, but with this exception, there was no important change in the organization of the department, as settled in 1863, until the year 1872. In the year 1870, in consequence of the increasing difficulty experienced in maintaining the minor works of irrigation throughout the country, a Public Works Commission was appointed to consider the agency by which they should in future be maintained, and to consider the expediency of reorganizing the Public Works Department. This Commission, though not unanimous in their report, laid stress on the increasing difficulty of enforcing the liability of the ryots to perform "coodimaramut," or customary labour upon irrigation works, and the disadvantages attendant on the complete divorce of the engineering agency from the Revenue Department; they also pointed out the inadequate supervision by the superior officers of the Public Works Department, owing to inherent defects in its constitution, whereby the eight Superintending Engineers had immediately under their control as many as 88 executive officers in charge of ranges; and they remarked that the organization of 1858 had not had a fair trial, and that the arrangement, resolved on in 1863, of rendering the range officers independent of any control but that of a few Superintending Engineers, was faulty. They therefore recommended, both as a means of securing more effective supervision, and of restoring the intimate co-operation of the Revenue Department with the Public Works Department (a point which they considered of great importance) in the prosecution of public works, that the Superintending Engineers should be abolished, and the District Engineer organization of 1858 again restored, by appointing a District Engineer for each Collectorate to control the range officers within that Collectorate. With regard to the question of the effective maintenance of the minor works of irrigation, the Committee (like that of 1863) were of opinion that they should not be handed over to the Revenue Department, but considered that, as their numbers were far too great to admit of their effective maintenance by any Government department, arrangements should be made for the execution of all ordinary repairs, not requiring professional skill, by the agency of the ryots themselves, by providing that a reduction of assessment, in the form of a remission of revenue, should be granted for the execution of such repairs. The Committee also recommended the revival of "coodimaramut," or unpaid village labour of the ryots upon works of irrigation, by a legal enactment, and appended to their report a draft Act for its enforcement. It was not, however, until the year 1872, that practical effect was given to the chief recommendations of the Committee, and in the latter part of that year the Public Works Department was again reorganized, the principal changes made being, first, the abolition of the eight Superintending Engineers, and the appointment of 21 District Engineers in direct communication with the two Chief Engineers; and secondly, in consequence of the abolition of the Superintending Engineers, who, under the constitution of 1863, exercised the full powers of a Chief Engineer in their own divisions, the restoration to the Secretary to Government, Public Works Department, in the exercise of his capacity as Chief Engineer, of all the powers of the professional head of the department, which had been curtailed in the organization of 1863. The aggregate cost of the new establishment was Rupees 21,50,000 per annum. (11) *Further history of the department from* 1872 *to date.*—The further changes made in the organization of the department were comprised between the three years 1878 to 1881, and can be briefly recounted. The District Engineer system of 1872 remained in force up to December 1878, when it was again abolished, in favour of the Superintending Engineer system. The Presidency was divided into five circles of superintendence, each under a Superintending Engineer, and the number of executive divisions was reduced to 39. In the autumn of 1879, considerable reductions were made in the executive staff of the department, in consequence of the financial pressure, and the reduction of grants for expenditure on public works, and the number of executive divisions was further reduced to 29. It being found that, with the increased areas thus given to each division, the staff of the department was no longer equal to the task of executing the greater part of the public works of the Local Fund circles, all such works were, in the official year 1879-80, handed over to the Local Fund boards for execution by their own agency. The consequent reduction in the contribution of local funds to the cost of the Public Works establishment, amounting to about 5½ lakhs, together with the financial pressure then existing, which involved extensive reductions in the grants for works for the year 1880-81, necessitated a still further reduction in the strength of the Public Works establishment, and fifteen officers of the Engineer establishment and 79 upper subordinates were accordingly retired. The Presidency was divided into three Superintending Engineers' circles, instead of the five which had previously existed; the Public Works establishments were entirely withdrawn from certain parts of the country, and the number of executive divisions was reduced to 19, of which 13 were under the Superintending Engineers and the remaining six under charge of four Superintendents of Works, who were placed in direct communication with the Chief Engineers. Finally, in the year 1881, a large increase was made in the Engineer and Upper Subordinate establishment, which admitted of the Presidency being re-arranged into six Superintending Engineers' circles, sub-divided into 30 executive divisions, of which four were divisions sanctioned for the execution of projects. At the beginning of the official year 1884-85 this re-distribution was still in force, except that alterations had been made as regards the number of executive divisions as shown in paragraph 15. (12) *Conclusion.*—The foregoing paragraphs, bring out two noteworthy points; the gradual disuse of "coodimaramut," and the constantly-recurring difficulty regarding the maintenance of the minor works of irrigation. The decline of "coodimaramut" dates from the formation of the Public Works department in 1858. The officers of the new Department of Public Works then created were not vested with any powers for enforcing the obligation, while the Revenue authorities, having no longer the executive charge of the repairs of the minor irrigation works, made no systematic effort to ensure that the obligation should be carried out. It will be seen that both the Committee of 1863, and the Public Works Commission of 1870, attached great importance to the revival of "coodimaramut." The decline of "coodimaramut" tended largely to the difficulty experienced in the effective maintenance of minor irrigation works, added to which the great number of these works and their scattered nature precluded from the first their effective maintenance by Government agency. The frequent administrative changes made, from time to time, in the department since its formation in 1858, are largely due to the great difficulties attendant on providing for the maintenance of these minor irrigation works.

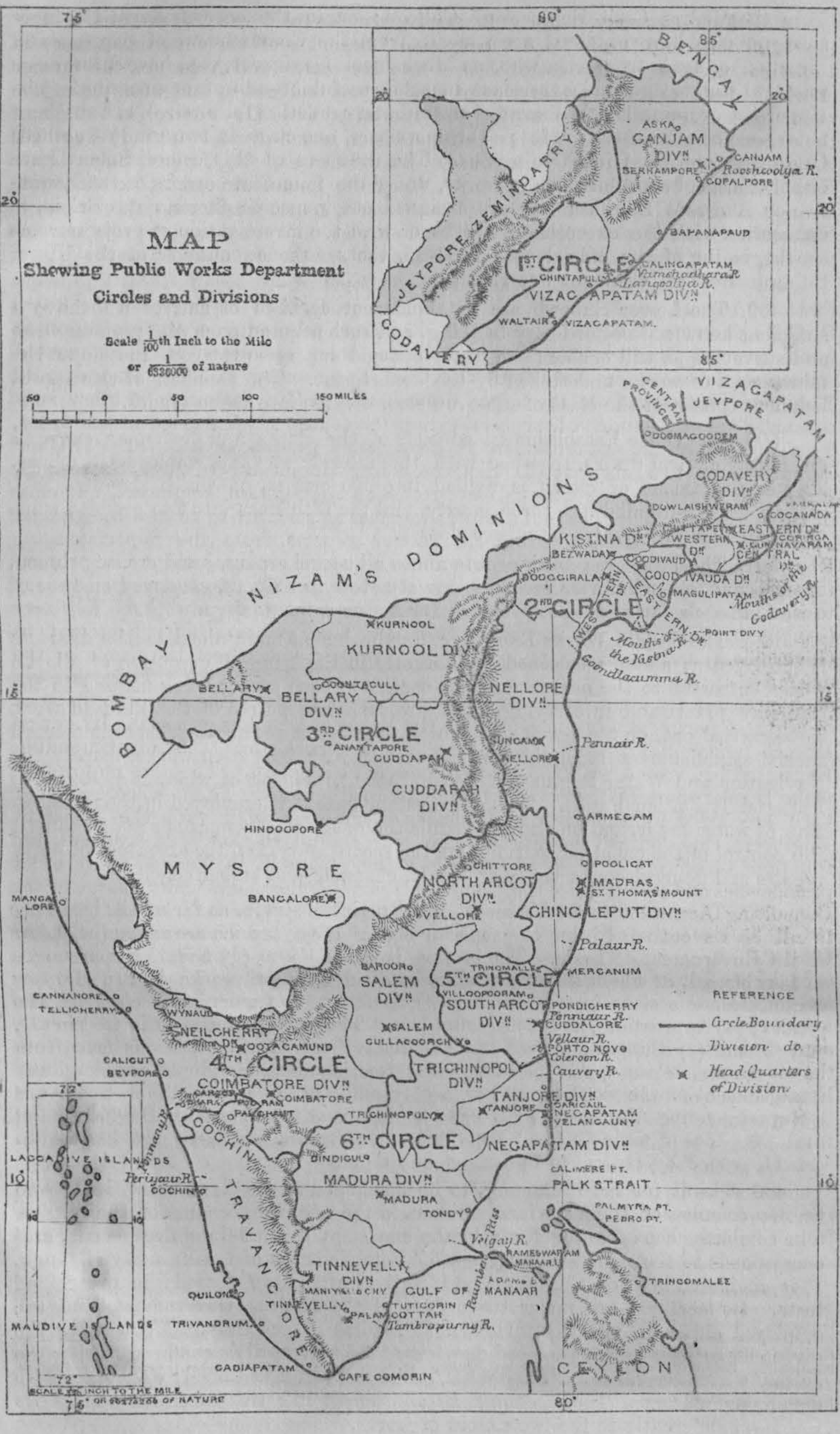
[2] ADMINISTRATIVE WORK OF THE DEPARTMENT—(1) *General*, all questions connected with the establishment employed on general duties; (2) *Irrigation*, all works connected with Irrigation canals, tanks, dykes, drainage, embankment and conservancy of rivers, river improvements; (3) *Buildings and Roads*, "a" buildings, &c., connected with the Army, Post office, Revenue Department, Telegraph Department, Marine Department, General Department, Ecclesiastical Department, Educational Department, Judicial Department; and "b" all questions relating to roads, bridges, navigable canals, other than those connected with systems of irrigation, accommodation for travellers, improvement of towns, harbour improvements, light-houses, mines, manufactures; (4) *Railway*, Guaranteed and State Railways.

496. ESTABLISHMENT UNDER "BUILDINGS AND ROADS" AND "IRRIGATION."—For the "Buildings and Roads" and "Irrigation" branches of the department there is a distinct division of the establishment into Executive and Accounts, the former of which deals with the preparation of designs and estimates, and with the supervision and execution of the works, and the latter with the control and audit of the expenditure incurred. The executive division is sub-divided into (1) Engineer Establishment, (2) Upper Subordinate Establishment, (3) Lower Subordinate Establishment, (4) Office Establishment, (5) Petty Establishment. The Accounts Branch is divided into the Control Establishment corresponding to the Engineer Establishment, and the Accountant Establishment of trained accountants corresponding to the Upper Subordinate Establishment, of the Executive Branch.

497. The Engineer Establishment is composed of officers of Royal Engineers (both of the old local cadres and the home corps), Civil Engineers of the Royal Civil Engineering College, Cooper's Hill, Engineers selected from the profession at home (termed Stanley Engineers), Civil Engineers appointed in India, passed students (European or Native) of the Civil Engineering College, Madras, and Engineers promoted from the Upper Subordinate grades, including Military subordinates who by seniority have been granted honorary commissions in the army. This portion of the establishment is classed and graded as follows:—(1) Chief Engineers in two classes; (2) Superintending Engineers in three classes; (3) Executive Engineers, one class in four grades; (4) Assistant Engineers, one class in three grades. The duties of a Chief Engineer as such are to control the general operations of his particular branch, receive reports from the Superintending Engineers, check designs and projects above a specific amount, and devise projects for effecting the objects suggested to him by Government. In the performance of these duties, he is assisted in the Central Office by a Deputy Chief Engineer (usually of the grade of Executive Engineer, who is also Under Secretary to Government) and by the Superintending Engineers who direct the whole of the executive operations carried on within the circle assigned to each. There are six such circles in the Presidency, each under a Superintending Engineer who disposes of all the departmental business for both the Roads and Buildings and the Irrigation Branch, under the powers confided to him by the Code. The Superintending Engineers are vested with considerable powers of sanction. They are required to make regular tours of inspection throughout their circles. These officers in their turn are aided by the several Executive Engineers, who, with the Assistant Engineers, carry out all the operations in both the above-mentioned branches, the functions of officers of these classes not being separated in Madras as in other presidencies and provinces of the Empire. Including the works under charge of the Consulting Architect to Government and two tank maintenance schemes, there are in all 35 Executive Divisions. Only a few of these are conterminous with the Civil Collectorates. Twenty-eight of the divisions are permanent. In pursuance of a policy which has lately been introduced, important works of considerable magnitude are now being carried out by the aid of temporary establishments, the works themselves being kept apart from the other works undertaken in the permanent divisions within which they are situated; these special divisions constitute the additional seven. The following was the sanctioned scale of the Engineer Establishment of the department at the beginning of 1884-85:—Chief Engineers 2, Superintending Engineers 6, Executive Engineers 42, Assistant Engineers 40; total 90. The Public Works Department circles and divisions are shown in Vol. II, App. LXXII, and in the accompanying map.[3]

498. The Upper Subordinate Establishment consists of men appointed from the non-commissioned officers and soldiers of Her Majesty's Army in India; or from Civilians, European or Native, who have obtained the required certificates

[3] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN THE MAP SHOWING PUBLIC WORKS DEPARTMENT CIRCLES AND DIVISIONS.—Anantapur, Arcot, Aska, Bellary, Berhampore, Beypore, Calingapatam, Cannanore, Cauvery, Chingleput, Cocanada, Coimbatore, Coleroon, Coringa, Dhárápuram, Dindigul, Dowlaishweram, Ganjam, Godávari, Gopálpur, Gudiváda, Gundlakamma, Guntakal, Hindupur, Jeypore, Karúr, Kallakurchi, Kistna, Kurnool, Lángulya, Madras, Madura, Mangalore, Maniyáchi, Masulipatam, Negapatam, Nellore, Nílgiri, Pálár, Palamcottah, Pálghat, Pámban, Pennér, Periyár, Pondicherry, Ponáni, Ponniár, Porto Novo, Pulicat, Quilon, Rámesvaram, Rushikulya, Salem, Támbraparni, Tanjore, Tellicherry, Tinnevelly, Tiruvannámalai, Tondi, Trichinopoly, Trivandrum, Vaigai, Vamsadhára, Vellár, Vellore, Villupuram, Vizagapatam, Waltair, Wynaad.


MAP
Shewing Public Works Department
Circles and Divisions
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
50 0 50 100 150 MILES
REFERENCE
Circle Boundary
Division do.
Head Quarters of Division
BENGAL
JEYPORE ZEMINDARRY
ASKA
GANJAM DIVN
BERHAMPORE
CANJAM
Rooshcoolya R.
GOPALPORE
BAPANAPAUD
1ST CIRCLE
CALINGAPATAM
Vamshadhara R.
Langoolya R.
CHINTAPULLI
VIZAGAPATAM DIVN
WALTAIR
VIZAGAPATAM
GODAVERY
CENTRAL PROVINCES
VIZAGAPATAM
JEYPORE
DOOMAGOODEM
GODAVERY DIVN
DOWLAISHWERAM
COCANADA
WESTERN DN
EASTERN DN
CENTRAL DN
NAVARAM
Mouths of the Godavery R.
NIZAM'S DOMINIONS
KISTNA DN
BEZWADA
GOODIVAUDA
GOODIVAUDA DN
DOOGGIRALA
MASULIPATAM
2ND CIRCLE
WESTERN DN
EASTERN DN
POINT DIVY
Mouths of the Kistna R.
Goondlacumma R.
BOMBAY
KURNOOL
KURNOOL DIVN
BELLARY
BELLARY DIVN
3RD CIRCLE
ANANTAPORE
CUDDAPAH
CUDDAPAH DIVN
NELLORE DIVN
NELLORE
Pennair R.
ARMEGAM
HINDOOPORE
MYSORE
BANGALORE
MANGALORE
CHITTORE
NORTH ARCOT DIVN
VELLORE
POOLICAT
MADRAS
ST. THOMAS MOUNT
CHINGLEPUT DIVN
Palaur R.
MERCANUM
BAROOR
SALEM DIVN
5TH CIRCLE
TRINOMALLEE
VILLOOPOORAM
SOUTH ARCOT DIVN
PONDICHERRY
Pennaur R.
CUDDALORE
Vellaur R.
PORTO NOVO
Coleroon R.
Cauvery R.
SALEM
CULLACOORCHY
CANNANORE
TELLICHERRY
WYNAUD
NEILCHERRY DN
OOTACAMUND
4TH CIRCLE
CALICUT
BEYPORE
COIMBATORE DIVN
COIMBATORE
PALGHAUT
TRICHINOPOLY DIVN
TRICHINOPOLY
TANJORE DIVN
TANJORE
CARICAUL
NEGAPATAM
VELANGAUNY
6TH CIRCLE
NEGAPATAM DIVN
DINDIGUL
COCHIN
Periyaur R.
TRAVANCORE
MADURA DIVN
MADURA
TONDY
CALIMERE PT.
PALK STRAIT
PALMYRA PT.
PEDRO PT.
Vaigay R.
RAMESWARAM
Rameswaram Rks
TINNEVELLY DIVN
TINNEVELLY
PALAMCOTTAH
TUTICORIN
GULF OF MANAAR
Tambrapurny R.
TRINCOMALEE
QUILON
TRIVANDRUM
CADIAPATAM
CAPE COMORIN
CEYLON
LACCADIVE ISLANDS
MALDIVE ISLANDS
75° 80° 85° 20° 15° 10°

from the Madras Civil Engineering College; or, in the case of Royal Engineer soldiers, who have obtained a certificate from the Commandant of Sappers and Miners; or again from men who, as Mechanical Engineers, &c., have a thorough practical knowledge and experience in some useful branch of engineering. The Upper Subordinate Establishment is classed and graded as follows :—(1) Sub-Engineers, one class in three grades; (2) Supervisors, one class in two grades; and (3) Overseers, one class in three grades. The members of this establishment have either charge of a sub-division of works, under the immediate orders of the Executive or Assistant Engineers, or are assigned other specific duties, not clerical, in connection with the execution of works or with the investigation of projects. At the beginning of the official year 1884-85, the sanctioned number of the Upper Subordinate Establishment was 185.

499. The Lower Subordinate Establishment consists of natives who have a sufficient knowledge of ordinary building, and such acquaintance with plan-drawing and surveying as will enable them to set out and supervise the construction of the minor class of works undertaken by the department. The members of this establishment consist of the class of sub-overseers, divided into three grades.

500. The Office Establishment consists of the clerks and draftsmen engaged on purely clerical duties, together with the inferior servants employed in offices. The establishment of clerks is divided into five classes, of which the first four classes are sub-divided into three grades, and the fifth class into two grades; while the draftsmen are divided into three classes.

501. The Petty Establishment includes all storekeepers, artificers, watchmen, lascars, and other inferior servants not attached to officers, employed on general duties, whose salaries are not provided for in any estimate for a work.

502. The Public Works Executive Establishment maintained in the districts is employed as above mentioned indifferently in the general execution of all the works entrusted to the department, the service of each officer being utilized in the best way practicable in carrying out the works, irrespective of the kind of work to be carried out, or the service for which the work is required. There is a small special establishment maintained in connection with irrigation works, namely the Navigation and Water Regulation Establishment, the cost of which is a charge to Imperial Irrigation Funds. This extra establishment is employed in the distribution of water for irrigation and the regulation of the supply in canals and channels, the control of the canal navigation and the record of traffic, the execution of petty repairs and general conservancy of canals, channels, and embankments.

503. The accounts establishment is a Provincial service as far as the incidence of charges is concerned, but the superior officers of the branch are under the orders of the Government of India. The branch is divided into (1) Examiners arranged in four classes, of which the fourth class is divided into three grades; (2) Deputy Examiners, one class in two grades; (3) Assistant Examiners, one class in two grades; (4) Apprentices, and (5) Accountants. The establishment comprised in (1), (2), (3) and (4) corresponds with the "Engineer" establishment, is recruited from much the same classes, and forms a general service under the direct orders of the Government of India. The duties of the Examiner are to control the operations of the Accounts Establishment in the Presidency, to audit the accounts of receipts and expenditure submitted to him by the Executive Engineers and other disbursing officers of the department, and subsequently to compile these accounts into one general account for the Presidency, to be submitted to the Accountant-General to the Government of India for incorporation in the general accounts of the empire. The establishment of Accountants forms one class divided into five grades, and corresponds to the "Upper Subordinate" Establishment of the Executive Branch. It is composed both of Europeans and Natives who have passed the prescribed tests. Its members are under the orders of the Madras Government, and are employed either in the Central office at Madras in auditing and compiling the divisional accounts, or at the head-quarters of the several divisions in preparing the accounts from the cash-books and other initial records, maintained by the Executive disbursing officers. The Accounts Establishment like the executive applies its services indifferently to the two classes of works.

504. Establishments under Railway Branch.—In the Railway Branch also there is a division into Executive and Accounts; but inasmuch as all the railways in this Presidency have been constructed through the agency of Guaranteed Companies, not by the direct agency of the State, the Executive staff has hitherto consisted only of the Chief Engineer who is styled Consulting Engineer for Railways, with two Deputy Consulting Engineers who are generally taken from the class of Executive Engineers. The control over the proceedings of the Guaranteed Railway Companies, which is secured to the State in virtue of the contract agreements, is exercised through the Consulting Engineer, who is also the sole channel of communication between the Madras Government and the Companies. The nature and extent of the control vested in the State are subsequently explained. As already mentioned, the Consulting Engineer for Railways is also Joint Secretary to Government in the Railway Branch. The accounts of the Railway Branch are in charge of an officer, styled Examiner of Railway Accounts, by whom all the expenditure of the Guaranteed Companies is examined and audited on behalf of Government. The Examiner of Railway Accounts is assisted by a Deputy Examiner, who is stationed at Negapatam, the head-quarters of the South Indian Railway.

505. Nature of Work done.—The Public Works Department deals with all engineering works undertaken by the State, the construction or repair of which has to be carried out under professional superintendence. Detailed designs and estimates for public buildings and other engineering works required by any other department of Government are drawn up by this department, and, after the general arrangements proposed have been approved of, the Public Works Department carries out the works as soon as funds are made available to meet the estimated expenditure. The Public Works Department is thus called upon to plan and execute works for the Government of India; for the Provincial Government; for the various Local Fund Boards; for the Board of Revenue and the Heads of other Departments, as Trustees of certain special funds which they administer; for the Court of Wards; and occasionally for Municipal Corporations. Where there are no State Railways it follows that there are works to be executed only in the "Buildings and Roads" and "Irrigation" Secretariat divisions.

506. Government of India Works.—For the Imperial Government the Public Works Department undertakes the construction and maintenance of the following works. The following classification is the technical one used for statistical purposes:—(*a*) "Irrigation," including all works in connection with Irrigation and River Conservancy; (*b*) "Imperial" proper sub-divided into "Military," including all works connected with the Army, such as Fortifications, Barracks, Commissariat and Ordnance buildings, Military rest-houses, and Cantonment roads and "Other Services," including all buildings and other works connected with the Postal, Telegraph, and Salt Departments, together with such mining operations, Light-houses and other public improvements as may be considered to be rather of Imperial than of local interest. To meet the expenditure on these heads, grants are yearly made by the Imperial Government from the ordinary revenues of India and also from loans raised by the Imperial Government for the purpose of constructing reproductive works. By far the most important works carried out by the Public Works Department on behalf of the Government of India are those connected with irrigation and the conservancy of rivers. For the year 1884-85, the Imperial grants for "works" amounted to Rupees 32,75,909 from ordinary revenue, and Rupees 16,06,162 from Loan funds. The total grant was allotted as follows:—Irrigation, Rupees 42,94,071, Imperial Military, Rupees 4,73,300, Imperial Other Services, Rupees 1,14,700, total Rupees 48,82,071.

507. Works for Provincial Government.—For the Provincial Government, the Public Works Department constructs and repairs all buildings in connection with the Judicial, Revenue, Customs, Police, Educational, Jail, Medical, Marine, and Ecclesiastical Departments, as well as all navigable canals not forming part of a system of irrigation channels. To these may be added a few special roads; all works connected with the improvements, water-supply, and drainage of towns other than Municipalities; all works connected with harbours; and all works connected with the light-houses, required for the purely local coasting trade. For

the year 1884-85 the grants from Provincial funds for expenditure on works amounted to Rupees 17,60,391.

508. LOCAL AND SPECIAL WORKS.—Under existing arrangements, the Public Works Department only executes a few works on behalf of Local Fund boards, and all roads in the Presidency, together with all other works, formerly undertaken by the Public Works department for the Local Fund boards, are practically constructed and maintained by the agency of establishments employed by the Local Fund boards, except such works as from time to time are specially excepted. This system dates from the year 1879-80, when a very comprehensive measure of decentralization, with regard to all Local Fund works, was carried out, by giving full scope to Act IV of 1871, constituting the formation of Local Fund boards. The duties of the Public Works Department with regard to Local Fund works are, in the main, now confined to the professional scrutiny of important designs and estimates for bridges, &c. An additional establishment is maintained in the offices of the Superintending Engineers and in that of the Chief Engineer, Public Works Department, for the purpose of scrutinising such projects, and a contribution of Rupees 21,250 is annually paid by Local Funds on account of the professional scrutiny of their estimates by the Public Works Department Establishment. The "Special works" undertaken by the Public Works Department are executed from certain special funds administered by Government and by the Board of Revenue. For the year 1884-85, the grants from Local and Special Funds for expenditure on "works" amounted to only Rupees 16,710 and 25,700 respectively.

509. EXECUTION OF WORKS.—The execution of the Public Works in this Presidency is for the most part carried out either by daily labour under the direction of the officers of the department, or by petty contract under the same supervision. A few works, however, after being designed by the Public Works Department, are carried out under the supervision of officers of the departments directly concerned with the work, special Government sanction being necessary for this in nearly all cases. The employment of large contractors, and especially of European contractors, in the execution of works in this Presidency is mainly confined to the preparation and supply of materials for large works and to the construction of certain classes of buildings. Except in cases of emergency, Executive Engineers are not authorized to put in hand any work without a duly sanctioned estimate and an appropriation of funds. An appropriation once made, the work is put in hand by the Executive Engineer after the necessary arrangements have been made with the Revenue officers for the formal acquisition of the land required. Funds for the prosecution of the work are drawn by the Executive Engineer from the nearest treasury by cheques on his public account, and, on completion of any work estimated to cost over Rupees 500, that officer prepares and signs a "completion report," certifying as to the manner in which the work has been carried out. Repairs to buildings once constructed are made, as occasion requires, by the Public Works Department, under the head of "Repairs" in their budget.

510. ESTABLISHMENT CHARGES.—Apart from the cost of the works themselves, which includes extra or temporary establishment beginning and ending with the work and the materials necessary for the work, there are charges to be met from permanent establishment. The work of the latter consists in making plans, in supervising execution by permanent hands, and in accounting and in auditing, and the charges for this are called "Establishment charges." The cost of the whole establishment of the Railway Branch is borne by Imperial Funds. That of the rest of the general establishment is divided arbitrarily between the several heads of service. The rules for the debit of the amount charged to "Irrigation" are given in the Article on Irrigation. All other funds contribute 23 per cent. on the outlay on works, and 5 per cent. on the revenue collected in the Public Works Department. The balance of the establishment charges, whatever it may amount to, is charged to "Provincial;" indeed for the purposes of account, the whole Public Works establishment is regarded as Provincial, to which head the total charges for establishment are, in the first instance, debited. During the official year 1882-83, the whole Public Works establishment charges amounted to Rupees 18,21,957, of which Rupees 11,76,113 were charged to "Imperial" as follows:—Imperial, Irrigation, Rupees 10,18,968, Imperial, Military, Rupees 1,11,767,

Imperial, other services, Rupees 45,378. Rupees 78,553 were charged to "Provincial," and Rupees 43,182 to "Local" funds on account of work executed, while the balance of Rupees 5,23,909 was the charge which "Provincial" had to bear of the establishment charges of the Public Works Department. Of the whole amount of Rupees 18,21,957 for establishment, Rupees 16,84,518 were for the Executive establishment, and Rupees 1,37,439 for the Accounts establishment. When works are carried out by departments other than the Public Works Department, the latter find the plans and audit the expenditure; but no charge is made for establishment on this account.

511. Tools and Plant Charges.—Under the Public Works system of account, the estimate drawn up for a work does not include the cost of the tools and plant required for its execution; charges on account of tools and plant being carried to a separate head. Tools and Plant charges are, in the first instance, charged to "Provincial," as in the case of establishment charges, and a percentage of 1½ per cent. on expenditure and repairs is charged to all funds, on account of general tools and plant, except in the case of Irrigation and Navigation works for which Capital and Revenue accounts are kept, when the actual expenditure incurred is charged to the works. Where tools and plant are specially procured for a work, the cost of such "Special tools and plant" is charged to the work.

512. Workshops.—In connection with the Public Works Department are the Workshops at Madras, Dowlaishweram, and Bezwada. These institutions are self-supporting; the prices charged on the work turned out being sufficient to meet all charges for labour, materials, and supervision, as well as for interest on capital and depreciation of the stock.

513. Incidence of Public Works Expenditure.—The grants for expenditure from Imperial funds on public works are made annually by the Government of India and are met from the revenue of the year, or from funds raised on loan. The grants from Provincial funds for expenditure on public works are fixed annually by the Financial Department of the Madras Government, and are, as far as practicable, regulated by the amounts set apart by the Government of India under Lord Mayo's decentralization scheme of 1870, whereby the permanent assignment made to "Provincial," for the Madras Presidency, was fixed at 23·3 lakhs for expenditure on public works. The actual grants and expenditure have, however, fallen far short of this amount, as, excluding the famine year of 1877-78 (when an abnormal expenditure of Rupees 60,88,309 was incurred), the average annual expenditure from Provincial, from the years 1871-72 to 1882-83, was only Rupees 18,97,560. The grants to Provincial have, however, been increased by the Government of India for the years 1882-83, 1883-84, and for each remaining year of the current Provincial contract, i.e., up to 1886-87. The total expenditure by the Public Works Department from Imperial, Provincial and Local Funds from the years 1870-71 to 1882-83, including the charges for establishment and tools and plant, is shown in Vol. II, App. LXXIII.

PUBLIC WORKS—GENERAL BRANCH.

514. Nature of the Branch.—This has been already indicated in the Preliminary article, and the Branch calls for no separate detailed mention. The Chief Engineer in charge of this Branch, who has also the Buildings and Roads Branch, and is Secretary to Government in the Public Works Department, deals with the general policy and administration of the whole department, and with the promotion, posting, and discipline of its establishment. He is assisted in these functions by a Deputy Chief Engineer, who is also Under Secretary to Government in the Public Works Department.

PUBLIC WORKS—BUILDINGS AND ROADS BRANCH.

515. Introduction.—The Buildings and Roads Branch of the Public Works Department in this Presidency includes both of what are known in the Northern

Provinces of India as the Buildings and Roads division and the Military Works division. It deals with all questions and works not special to the Irrigation or the Railway branches, and comprises therefore the construction and repair of all buildings connected with the different Executive departments of Government, as well as all works relating to roads, bridges, navigable canals other than those connected with systems of irrigation, accommodation for travellers, improvement of towns, harbour improvements and marine works, light-houses, mines, and manufactures. When the technical classification according to account heads is followed, works executed under this branch fall necessarily under one or other of the heads given at foot.[1] All roads, except those in military cantonments, come under Local, though grants-in-aid are made from Provincial Funds in a few special cases.

516. Buildings.—The duties of the Public Works Department under this head were in the earliest times confined to building civil courts and cutcherries, public bungalows and military hospitals. They next were called on to undertake the building of large barracks for the accommodation of British troops, and to the construction of jails. Of late they have attended to the provision of new buildings required by the expansion of business in the Postal, Telegraph, Educational, Medical and other departments. The largest and most important military building that has yet been constructed is the Military Convalescent depôt at the station of Wellington on the Neilgherry Hills. This building was commenced as far back as 1852, but occupied many years in construction, owing to the difficulties experienced in procuring labour and materials for the work. As each block of the buildings was completed, it was handed over by the Public Works Department to the military authorities for occupation, and, at the end of the official year 1860-61, a total expenditure of Rupees 17,59,961 had been incurred on the barracks, and its subsidiary buildings and connected works. The barracks are commodious and well placed. The next military building in order of importance is the Lawrence Asylum at Lovedale, 3 miles from the station of Ootacamund, in the Neilgherry Hills. This building was commenced about the year 1864-65, and also took many years in construction, owing to the difficulties found in supplying labour and materials. Convicts were largely employed in the works under the superintendence of the Public Works Department. The asylum was intended, and has been used, as a training school for the free education of sons and daughters of European soldiers of the army. An estimate of Rupees 11,38,310 was sanctioned for the work, and by the end of 1876-77 (when the building was practically finished), an expenditure of Rupees 8,60,910 had been incurred, of which Rupees 54,000 were defrayed by private contributions. The building is in the Lombard style, and occupies an open and commanding site. The remaining military buildings of importance, constructed by the Public Works Department, together with the expenditure incurred on them, are shown in the foot-note.[2]

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[1] Nature of Works under three Account Heads.

Imperial.	*Provincial.*	*Local and Special.*
Military—	Civil Buildings.	Communications.
Fortifications.	Communications.	Civil Buildings.
Military Buildings.	Miscellaneous Public Improvement.	Miscellaneous Public Improvement.
Military Roads.		
Miscellaneous.		
Other Services—		
Civil Buildings.		
Communications.		
Miscellaneous Public Improvement.		

[2] List of Minor Military Building Works.—Family quarters in Fort St. George—Estimate Rupees 1,58,100.—
Begun in 1863-64; finished in 1865 at a total cost of Rupees 1,60,910. Cannanore barracks, married quarters—Estimate
Rupees 1,27,723.—Commenced in 1866-67; completed in 1873-74 at an outlay of Rupees 1,20,147. Artillery barracks,
Cannanore—Estimate Rupees 1,05,300.—Begun in 1866-67; finished in 1868-69 at a total cost of Rupees 1,05,974.
Family quarters for Warrant and Non-commissioned Officers of the Ordnance Department at the Presidency—Estimate
Rupees 1,03,910.—Begun in 1866-67; finished in 1869-70 at a total outlay of Rupees 1,03,044. Artillery barracks, St.
Thomas' Mount—Estimate Rupees 2,46,920.—Commenced in 1868; completed in 1876 at a total cost of Rupees 2,48,146.
Additions to Parade barracks, Bangalore—Estimate Rupees 2,19,830.—Work finished in 1876-77 at a total outlay of
Rupees 2,19,622. Barracks for European Infantry at Cannanore—Estimate Rupees 2,97,430.—Work completed in
1876-77 at a total cost of Rupees 2,74,245. Race-course barracks, Bangalore—Estimate Rupees 5,92,540.—Work finished
in 1876-77 at a total outlay of Rupees 6,16,402. Double-storied barracks for a second Battery of Field Artillery at
St. Thomas' Mount—Estimate Rupees 2,46,920.—Work completed in 1876-77 at a total cost of Rupees 2,48,146. Barracks
for European Infantry at Bellary—Estimate Rupees 3,62,988.—Work completed in 1877-78 at a total outlay of Rupees
3,83,265. Barracks for European Infantry, Fort St. George—Estimate Rupees 2,27,350.—Work finished in 1874-75 at a
total cost of Rupees 2,29,706. Royal Horse Artillery barracks, St. Thomas' Mount—Estimate Rupees 1,35,050.—Work
still in progress, and expenditure up to June 1884, Rupees 91,343. Improvements to Gun Carriage Factory, Madras—
Estimate Rupees 2,48,492.—Expenditure to end of June 1884, Rupees 2,15,949.

The civil buildings which require particular notice are not numerous. For Government-house, Ootacamund, an estimate of Rupees 7,79,150 has lately been sanctioned. Up to June 1884, an expenditure of Rupees 6,08,178 had been incurred against the sanctioned estimate. The next building in order of importance is the new Postal and Telegraph office, Madras, which is now rapidly approaching completion. This building, which may be considered the first in the presidency town, was begun as long ago as 1874, when the foundations of the Telegraph office were commenced; but, owing to a variety of causes, the building was not regularly put in hand until the year 1881-82. The sanctioned estimate for the work is Rupees 6,18,414, and the expenditure incurred up to the end of June 1884 was Rupees 6,12,574. The building is in the Hindoo-Saracenic style and occupies a central position on the beach nearly facing the Madras harbour. The Senate-house of the Madras University and the Presidency College are the buildings for the design of which the Madras Government in April 1864 invited open competition by advertisement. The designs of Mr. R. F. Chisholm (then of the Bengal Public Works Department) were accepted by the committee of adjudication, and a prize of Rupees 3,000 was awarded to that gentleman; who was shortly afterwards appointed Consulting Architect to the Government of Madras, an appointment which he still holds. The Presidency College is in the pure Italian style, was commenced in 1864-65 and was completed in 1870-71 at a cost of Rupees 3,12,697. The style of the Senate-house leans to the Byzantine. It was commenced in April 1874 and was finished in March 1879 at a cost of Rupees 2,89,729. The only other building which requires particular notice is the Public Works Secretariat buildings at Chepauk, on which a considerable expenditure has been incurred. The building was constructed during 1864-65 to 1867-68 at a cost of Rupees 1,12,233 for the accommodation of the Public Works Workshops stores and foundry. During the years 1876-77 to 1879-80, it was improved and adapted, at a cost of Rupees 1,26,403, for the accommodation of the Public Works Secretariat, who were in the latter year transferred thereto from their old quarters in Fort St. George, while the Public Works Workshops were removed to an old building at the Seven Wells. In the year 1883-84 further improvements were begun and are still in progress, against a sanctioned estimate of Rupees 1,00,545, for the extension and embellishment of the premises. The building, which was formerly devoid of ornament, is now a handsome and commodious structure in keeping with the Chepauk Palace, Senate-house, and Presidency College, which are all situated in its immediate vicinity, on the sea-face at Chepauk. The more important jails of the Presidency, together with other civil buildings, are enumerated in the list at foot.[3] The most important work of restoration to buildings undertaken by the department is the restoration of Trimal Naick's Palace at Madura, on which an expenditure of Rupees 2,35,350 had been incurred up to June 1884. The work of restoration

[3] LIST OF MISCELLANEOUS CIVIL BUILDINGS.

Name of building.	Estimate.	Begun.	Completed.	Cost.
Central Jails.	RS.			RS.
Rajahmundry	3,53,597	1863-64	1870-71	3,27,804
Vellore	3,75,294	October 1866 ...	March 1873	3,73,233
Trichinopoly	3,78,892	December 1866 ...	December 1872 ...	3,79,297
Coimbatore	...	1863-64	1867-68	3,76,338
Cannanore	3,27,000	November 1866 ...	March 1873	3,14,264
District Jails.				
Palamcottah	2,08,000	June 1876	In progress	* 1,33,850
Tanjore	2,11,100	March 1882	Do.	* 92,070
General.				
Improvements to General Hospital, Madras	2,19,500	......	1865-66	2,51,015
Improvements to the Office of the Board of Revenue, Chepauk	1,80,305	1868-69	1873-74	1,82,154
Lunatic Asylum, Madras	2,43,500	1866-67	1871-72	2,30,387
Converting Royapettah Police Court into house for Prince of Arcot	1,49,696	February 1877 ...	February 1878 ...	1,33,585
Lying-in Hospital, Madras	1,78,660	April 1877	January 1883 ...	1,78,758

* Expenditure to end of June 1884.

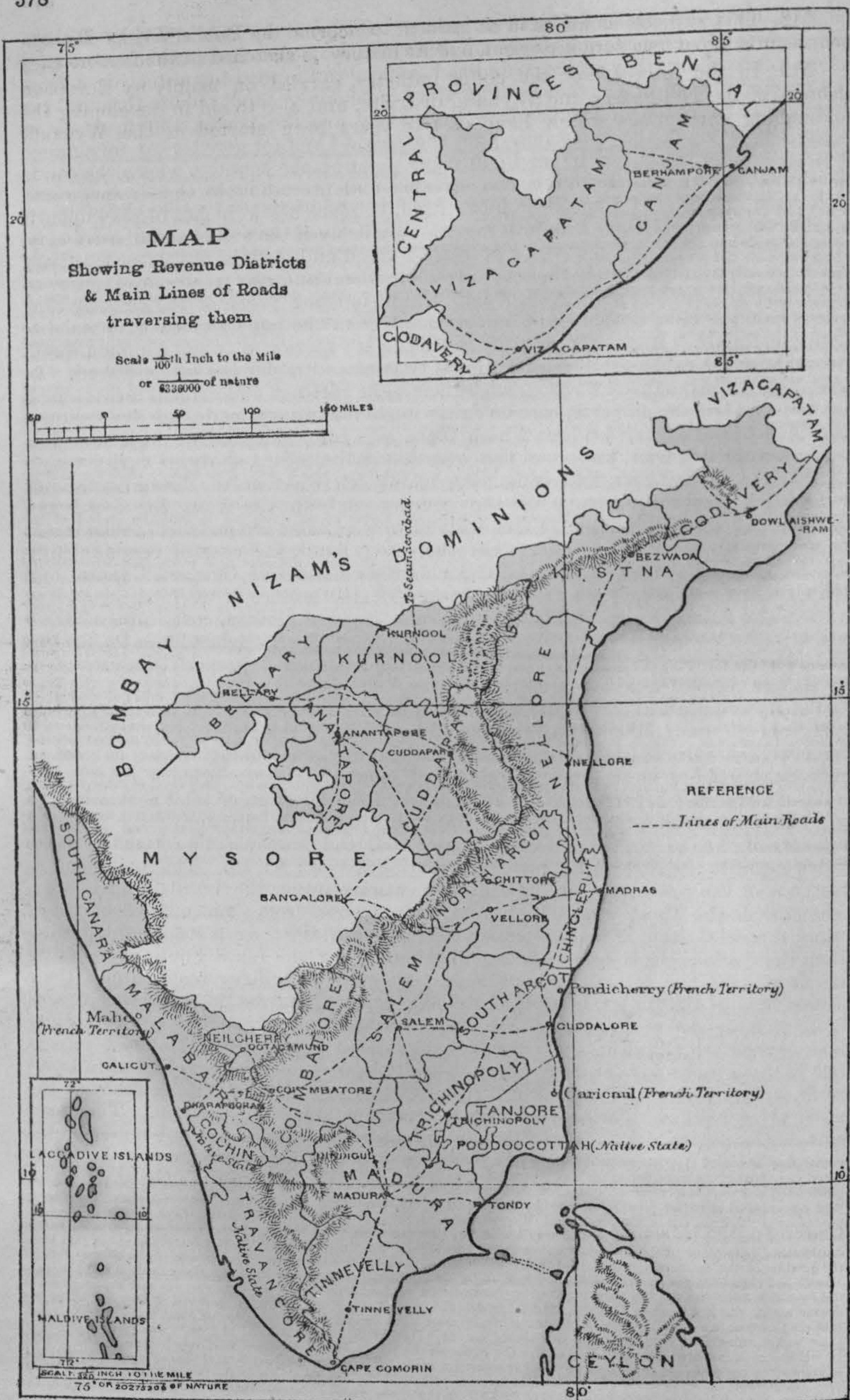
was begun as far back as the year 1870-71, when the existing structure was on the point of falling to pieces, and has been in progress since that date under the supervision of the Government Architect. In addition to the works which have been taken to ensure the security of this ancient building, the ornamentation of the palace has been carefully renewed, and the interior of the building has been adapted for the accommodation of the Collector's office, the court of the District Judge, and all the chief Government offices of the Madura district. In the years 1880-81, 1881-82, works of preservation were carried out at the Seven Pagodas, and consisted chiefly of the removal of the drift sand from the immediate neighbourhood of the monolithic rafts, the cutting off of drainage which was injuriously affecting the sculptures, and the works necessary to provide for the security of the stone temple. Some work has been carried out at the Vellore temple and at the ruins of Humpy in the Bellary district. Measures are now under consideration for the restoration of the ancient palace of Chundragherry, and for its adaptation for the use of public offices.

517. ROADS.—South Indian roads may be divided into three distinct classes according to the nature of their construction; that is to say, the ghaut road, the metalled road, and the unmetalled road or country track. The ghaut road is one connecting places and stations on hills and mountains with one another and with the adjacent low plains. The original tracing of the ghaut is of great importance. The chief points in connection with this are the selections respectively of the head and foot of the ghaut, of the best spots to cross streams and rivers, and of the most suitable place to change from one valley to another. These require considerable care and experience to determine to the best advantage. Engineering practice in these cases resembles similar work in the highlands of Scotland and Wales, and on the Alpine passes of Southern Europe. In the open plains ordinary road-making is, apart from the bridging, comparatively easy work. As the surface of the country undulates but slightly, and the road-traffic is one which accommodates itself to the circumstances, there is no necessity for scientifically laid curves or uniformly easy gradients. Deviations from direct lines between the towns are dictated mainly by the selection of suitable sites for bridges and the avoidance of inundated land or valuable cultivation. The location of the road in the first instance is therefore simple; and the provision for the minor drainages, the estimates for the light embankments required, and the choice of materials for covering the road, are points offering but little difficulty. A metalled road in the country is different from the metalled road of a town. A good metalled country road varies in breadth from 15 feet to 24 feet, of which the centre 12 feet are metalled. The limitation of the width of metalling to 12 feet is due to the customs of the country. The practice which obtains universally with the drivers of bullock carts is to maintain the same wheel tracks as those formed by previous traffic, so that a greater width of metalling would result in waste of labour and money. Metalling is of various materials in various parts of the Presidency. Those used are granite, limestone, sandstone, kunker (a peculiar formation of oolitic limestone), moorum (rock in course of disintegration) and laterite which is employed on roads in and about Madras Town. Gravel where obtainable is made to serve as a binding or blindage to the metal by being spread as an overcoat. Sand is sometimes spread as blindage. In constructing a new metalled road when the line chosen has been cleared, the width of the road and the positions of the side-ditches, side-cuttings, and lines of trees to form the avenue are marked out together with the sites of the various masonry works. The earth-bed is then prepared for the reception of the metal by being properly shaped and sloped each way from the centre to the sides; time being given, especially in the case of embankments, for the earth to settle. Upon this bed a coating of metal, three inches thick, is spread and is consolidated either by tamping or by the use of a stone-roller. A second coat of equal thickness with the first is then added and treated in a similar manner. A third coat is sometimes added of equal thickness. Even a fourth, if that be required. As remarked before, gravel or sand when procurable is used as blindage on the surface of the metal. Stone-rollers are generally used for consolidating road metal. Stone-rollers vary from 2 feet to 4½ feet in diameter and from 4 feet to 5 feet in length. Iron-rollers are also employed, but, with the exception of one now in use in the town of Madras, steam road-rollers are unknown in this Presidency. It may be noted that, while

in England trees are considered injurious to a road by not allowing the sun and wind to have free action on its surface; in India apart from the comfort they afford to travellers, they are regarded as beneficial to the road by protecting it from the excessive heat of the sun. The trees commonly employed in forming the avenues of the roads of the Madras Presidency are the portia, the margosa or neem, the banian, the tamarind, and the jack. With reference to unmetalled roads, tolerable roads can be made in many parts of the country, where the soil is favourable, by merely bridging the streams and attending to the drainage and transverse slopes. If the soil be loose sand, to place a few inches of clay upon it is often the cheapest way of improving it. Similarly if the soil is an adhesive clay, it may be improved by a coating of sand. Sand and clay, in proper proportions, make always a fair road for moderate traffic. Sand and clay roads are inferior to those that are metalled, or even gravelled, but in some parts of the country they are the only roads that can be constructed from the impossibility of obtaining better materials. A gravel road properly made is superior to one of common earth. Gravel however ranks as "metal" and is thus placed under the present head. In the plains ordinary district roads, with their light cuttings and embankments, small bridges and simple culverts, can be fairly made for a very moderate expenditure, exclusive of the larger bridges which form, as a rule, independent projects. The cost necessarily varies, but when the question is limited as above, it varies within narrow limits; the variations depending mainly on whether the line intersects or follows the general drainage of the country and on the leads for metal and gravel. A road of this class, 21 feet wide of which 12 feet are metalled, seldom costs more than Rupees 2,500 a mile. On the other hand, the cost of roads in hilly districts and of the ghauts across the mountain chains of Ganjam, Canara, and Coimbatore varies widely, as the features and characteristics of the hills themselves vary. The Pottinghy ghaut, leading up to the Jeypore plateau, cost Rupees 20,000 a mile; the Coonoor ghaut, up the eastern spurs of the Neilgherries, cost Rupees 18,000 a mile; the Goodalore ghaut will, when completed properly, cost upwards of Rupees 11,000 a mile; and the Hyderghur ghaut from the Canara district to the Mysore plateau cost Rupees 10,000 a mile. There is in fact a wide range of cost from Rupees 1,500 a mile for a small local line in the plains to Rupees 20,000 for a well-constructed mountain pass. Although when looking at the subject of road-making from an engineering point of view, the larger bridges may be set aside as requiring separate treatment still when the question of total cost arises, it must be remembered that the whole has to be included. In an average selected estimate of a road proposed to be constructed, the three leading items held the following ratio :—earthwork : metalling : bridges = 3 : 4 : 15. The road communications of the presidency are now almost entirely under the Local Fund Boards, who provide for their construction and maintenance from their own revenues, of which the chief item is that raised by the land-cess, aided by a small contribution from Provincial. In the year 1882-83, the number of the Local Fund engineering circles was 30, the total length of roads, exclusive of village roads under their charge, was 21,019 miles, while the total expenditure incurred on roads was Rupees 28,52,083, or 47 per cent. of the whole Local Fund expenditure. The chief lines of road are shown in the accompanying map.[4] Of these, the most important at the present day (as it traverses districts in which there is no line of railway) is the Great Northern Trunk Road from Madras to Calcutta, passing through the districts of Nellore, Kistna, Godavery, Vizagapatam, and Ganjam. This road crosses the entire drainage of the country at right angles to its course, and is provided with numerous bridges. Next, in order of importance, come the Great Southern Trunk Road from Madras to the Travancore frontier; the Great Western Trunk Road from Madras to Calicut; and the ghaut roads leading from the Neilgherry to the Malabar Coast, the Mysore plateau, and the Madras railway at Mettapolliem.

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[4] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN THE MAP SHOWING REVENUE DISTRICTS AND MAIN LINES OF ROADS TRAVERSING THEM.*—Anantapur; Arcot; Arcot, South; Bellary, Berhampore; Bezváda; Calicut; Canara, South; Chingleput; Chittoor; Cochin; Coimbatore; Cuddalore; Cuddapah; Dhárápuram; Dindigul; Dowlaishweram; Ganjam; Godávari; Kistna; Kurnool; Madras; Madura; Nellore; Nílgiris; Ootacamund; Pondicherry; Pudukóta; Salem; Tanjore; Tinnevelly; Tondi; Travancore; Trichinopoly; Vellore; Vizagapatam.


MAP
Showing Revenue Districts
& Main Lines of Roads
traversing them
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
150 MILES
REFERENCE
Lines of Main Roads
CENTRAL PROVINCES
BENGAL
GANJAM
VIZAGAPATAM
GODAVERY
BERHAMPORE
VIZAGAPATAM
NIZAM'S DOMINIONS
BOMBAY
To Secunderabad
KISTNA
BEZWADA
DOWLAISHWERAM
KURNOOL
BELLARY
ANANTAPORE
CUDDAPAH
NELLORE
MYSORE
SOUTH CANARA
BANGALORE
NORTH ARCOT
CHITTORE
VELLORE
MADRAS
CHINGLEPUT
SOUTH ARCOT
Pondicherry (French Territory)
CUDDALORE
SALEM
Mahe (French Territory)
MALABAR
NEILGHERRY
OOTACAMUND
CALICUT
COIMBATORE
PALGHAUT
COCHIN Native State
TRICHINOPOLY
TANJORE
Carical (French Territory)
POODOOCOTTAH (Native State)
DINDIGUL
MADURA
TONDY
TRAVANCORE Native State
TINNEVELLY
CAPE COMORIN
CEYLON
LACCADIVE ISLANDS
MALDIVE ISLANDS
80°
85°
75°
20°
15°
10°

518. This subject, as far as it at present concerns the Public Works Department, is in a great measure historical, and its history is sketched in the foot-note.[5]

519. In the interests of the coffee industry, carried on mainly by European planters in the Neilgherry and Wynaud districts, and also to aid in developing the gold-mining enterprises which have of late years been started in the Wynaud,

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[5] SKETCH HISTORY OF ROADS IN THE PRESIDENCY.—*Development of roads down to the formation of the Public Works Department in* 1858.—When Southern India first came under British rule, no roads suitable for wheel traffic existed, even in the main streets of the largest towns, and it was not until the year 1845, when the Trunk Road Department was formed, that any systematic progress in the construction of roads was made by the British Government. In the early days of British occupation the only made roads were the mountain passes, which were originally opened for the passage of troops and artillery. Subsequent to the construction of these rough roads were formed connecting the military arsenals and cantonments, but no roads for other than military purposes were constructed until the year 1813, when the necessity for the construction of roads for commercial purposes first engaged the attention of Government. Even then no systematic progress was made for many years, though in certain districts the energy of individual officers secured results within the limits of their charges. About the year 1823 an attempt was made to construct roads by the agency of the corps of Pioneers. This measure failed owing to the lack of professional knowledge on the part of the officers of the corps, which was then entirely officered by regiments of the line. In 1831 Government finally abandoned the idea of any considerable improvement and development of roads as a task of too great magnitude. From 1837 to 1844 some important lines of road were opened or improved, but owing to a want of system in the management of the several undertakings much wasteful and unprofitable expenditure was incurred, which circumstance led to the idea of the formation of a special department, whose sole duty it was to design and construct a great system of trunk roads, or main lines of communication, throughout the presidency. In the following year therefore the Trunk Road Department was constituted, and from that time until the year 1858 gradually proceeded to construct the trunk roads of the presidency, which, it will be observed, for the most part follow the lines connecting the military arsenals and cantonments, and therefore owe their origin to the rough roads originally traced out many years previously. Reviewing the expenditure on "communications" up to the year 1845, it is found that in the 20 years from 1826 to 1845 the average outlay on the communications of the whole presidency was only Rupees 1,16,926. With the year 1845 however a new era commenced. Previous to that date, the whole of the expenditure on roads was under the control of the Board of Revenue, under whom was also the Engineering establishment employed on them, but in 1845 the control of the expenditure passed into the hands of the Superintendent of Roads. In the foot-note to the article on Public Works—Preliminary the working of the Trunk Road Department has been briefly described. While not accomplishing what was expected and required of it owing to administrative defects in its constitution, it did much good work, gradually expanded its operations, and proceeded with the bridging, formation, and improvement of the trunk roads on a systematic and uniform plan down to the date of its final abolition in the year 1858. (2) *Further development of roads until the formation of Local Fund Boards in* 1871.—After the formation of the Public Works Department in the year 1858, the construction of the main roads of the country was carried out by the department from Imperial funds; while the duty of keeping the minor district roads also devolved, in most districts, almost entirely on the department. For some years however the funds provided for the main district roads were exceedingly inadequate, and were provided from Imperial revenue and from funds raised from local sources. In the year 1862, the attention of Government was directed to the question of the entire provision of funds for such roads as were of local rather than Imperial importance from funds raised locally. It was then determined, pending further investigation, that there were only 6,360 miles of road which could properly be maintained from Imperial funds, viz., the 2,610 miles of trunk road then existing, and 3,750 miles of first-class district roads. The remaining roads, amounting to about 10,000 miles of district lines, were considered to be of local importance. Various measures were proposed for the formation of a fund to be raised in each district, adequate to provide for the completion and maintenance of the latter. The income of the Local Funds of the presidency, at that time available for expenditure on district roads, was only Rupees 2,26,873 (derived from ferry and grass rents, bridge tolls, and cattle fines, &c.), and therefore allowed of but inadequate grants being spent upon the district roads. It was estimated at that time (1862) that the following sums were required for the completion and maintenance of the 6,360 miles of road already mentioned:—for trunk roads, complete construction Rupees 58,90,008 and annual maintenance Rupees 4,44,498; for district roads, complete construction Rupees 1,53,90,337 and annual maintenance Rupees 10,29,072, total complete construction Rupees 2,12,80,345 and annual maintenance Rupees 14,73,570. Whereas the total expenditure upon roads and communications for the five years preceding was as follows:—

Year.	Expenditure. New works.	Expenditure. Repairs.	Total.
	RS.	RS.	RS.
1856-57	13,75,611	5,41,195	19,16,806
1857-58	5,01,478	5,51,791	10,53,269
1858-59	3,81,736	7,98,268	11,80,004
1859-60	4,35,030	9,09,708	13,44,738
1860-61	6,17,260	9,82,285	15,25,545
Total ...	33,11,115	37,09,247	70,20,362
Average per annum ...	6,62,000	7,40,000	14,04,000

It therefore appeared that more must be done for the development of roads than had been the case for the past few years. In 1862 orders were issued for the preparation of detailed lists of the roads to be classed as Imperial and to be constructed and maintained from Imperial funds; and the subject of the creation of some scheme for augmenting the local resources in order to provide for the construction and maintenance of all other lines of road, which were to be denominated "district roads" in contradistinction to those classed as "Imperial," was referred to the Board of Revenue. In 1865 the wants of the districts in the way of local communications were every day becoming more urgent, and as considerable reductions in the Imperial grants given annually by the Government of India were made about that time, the question of the necessary provision of funds to be raised locally for expenditure upon roads (for which no definite scheme had then been prepared) was again taken up by Government. The Board of Revenue were called on to prepare and submit a draft Act for the levy of a district road-cess on all land-holders for the construction and maintenance of district roads, "as it was clear that the increasing demands upon the general revenues rendered it hopeless to expect that the Government would ever be in a position to do more than complete and maintain the chief lines of communications." Accordingly, in April 1866, the Bill known as the "District Road-cess Act III of 1866" was passed into law; by which a cess, not exceeding half an anna in the rupee on the rent value of occupied land, was imposed so as to form a fund for the construction and maintenance of the district roads. The amount raised by this cess subsequently attained very considerable dimensions, while in the year immediately after the Act was passed the general income from Local funds rose at once from an average of Rupees 6,84,150 in the three years 1864-65—1866-67, to Rupees 22,33,379 in the

a scheme for the extension and improvement of the existing lines of communication between the Malabar Coast and the Neilgherry plateau has lately attracted the attention of Government, and a special Public Works officer is now engaged in making the requisite surveys and estimates for the conversion of the existing lines of road into first-class metalled roads capable of bearing traffic during the monsoon. Though it is intended that the Public Works Department should ultimately execute the improvements proposed, existing arrangements for the maintenance of the road by the agency of the Local Fund Engineer establishment will not be disturbed until funds are available and the Public Works Department is in a position to take over the work of complete restoration. The improvements proposed will cost a large sum, and the work will extend over some years. As the line most required

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year 1867-68, and Rupees 32,27,379 in the year 1868-69, of which latter amount Rupees 15,17,097 was expended upon the construction of district roads. Meanwhile the final classification of all roads into "Imperial" roads and "District" roads was proceeding under the officers of the Revenue and Public Works Departments. This was not finally settled until the year 1868-69, when it was decided that the expenditure from Imperial funds should be restricted, first to certain specified main lines of communication, 25 in number, of a total length of 4,000 miles, secondly, to the ghaut roads and certain special roads, amounting in all to a length of 650 miles, and thirdly, to the salt roads, 23 in number, and 500 miles in length; while all other roads should be classed as district roads. Until the formation of Local Fund Boards in 1871, the Imperial and District roads, as thus determined, were maintained and constructed respectively from Imperial funds and from the "District Road Fund" raised under the Act of 1866, while the general agency of execution was the Public Works Department. Reviewing the expenditure incurred and the work done during this period, it is found that the expenditure on roads in the year 1868-69, for new works from Imperial funds, was Rupees 12,17,455, and was devoted chiefly, first to the construction and improvement of the Great Northern Trunk road from Madras to Calcutta in the districts of Madras, Nellore, Kistna, Vizagapatam, and Ganjam, and secondly, to the construction of ghaut roads in the Coimbatore, Malabar, and Wynaud districts; while the expenditure from the "District Road Fund" on new works amounted to Rupees 15,17,097, and was principally expended in completing a net work of minor communications, of which the most important were the railway feeders and the construction of embanked roads in the deltaic tracts of the Godavery, Kistna, and Tanjore districts. (3) *Construction and maintenance of roads under the Local Fund Boards.*—Local Fund Boards in the Madras Presidency were first constituted by the Local Funds Act IV of 1871, which repealed the District Road-cess Act of 1866, and provided for the unexpended balance of the "District Road Fund," raised under the Act of 1866, being transferred to the Local Fund Boards. The Local Funds Act provided for the imposition of a cess similar to the district roads-cess, but with a maximum of one anna in the rupee, and for the establishment of tolls upon roads, two-thirds of the cess and the whole of the tolls being expended on roads. The agency of execution was, as before, the Public Works Department; and to pay for the Public Works establishment employed on the roads, the Local Fund Boards were charged at the rate of 25 per cent. on the actual outlay incurred. In addition to the funds made available for expenditure on roads by the passing of the Local Funds Act, annual contributions from Provincial Funds were given by Government to the Local Fund Boards as grants-in-aid for expenditure upon the main lines of road, and from June 1871 the distinction formerly in force between "Imperial" and "District" roads was abolished, and the total annual assignment of grants-in-aid from "Provincial," together with the assignment from "Local Funds," was treated as one general fund under the designation of "Road Fund," which provided for the construction and maintenance of all roads, including those formerly provided for from the Imperial grant for communications. From the year 1872-73 to 1879-80 no change was made regarding the agency of execution of work upon roads and the provision of funds for expenditure thereon, and all such work continued up to 1879-80 to be carried out by the Public Works Department for the Local Fund Boards, while the expenditure relating thereto was accounted for in the Public Works Department. (4) *Final transfer to Local Fund Boards.*—In 1879-80 an important change was made, inasmuch as the entire execution of the maintenance and construction of roads was transferred from the Public Works Department to the Local Fund Boards, who forthwith employed their own Engineering establishments directly responsible to them. Since that date the Public Works Department has, with the exception of certain special works, such as the Pottinghy ghaut, &c., had nothing to do with the roads of the presidency generally, except as regards the check and examination of certain estimates. The following statement shows the total expenditure incurred upon roads (not including the establishment charges) during the period of execution of work upon them by the Public Works Department, viz., from the year 1872-73 to 1879-80:—

Year.	Expenditure on roads from "Provincial" funds.			Expenditure on roads from Local funds.			Grand Total.
	New works.	Repairs.	Total.	New works.	Repairs.	Total.	
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1872-73	1,09,828	45,994	1,55,822	11,96,521	19,01,416	30,97,937	32,53,759
1873-74	1,96,143	29,679	2,25,822	16,47,768	19,59,152	36,06,920	38,32,742
1874-75	1,66,258	32,353	1,98,611	13,17,300	20,17,239	33,34,539	35,33,150
1875-76	6,91,185	2,92,621	9,83,806	7,16,556	18,36,672	25,53,228	35,37,034
1876-77	2,82,443	2,44,304	5,26,747	11,28,748	16,93,471	28,22,219	33,48,966
1877-78	31,44,334	4,19,387	35,63,721	7,25,091	10,95,228	18,20,319	53,84,040
1878-79	6,51,510	4,33,614	10,85,124	3,85,839	15,05,426	18,91,265	29,76,389
1879-80	43,759	36,327	80,086	3,08,560	16,33,024	19,41,584	20,21,670

The expenditure of 1876-77 was abnormal, and was due to the famine. The expenditure shown under the head "Provincial" was that incurred by the department on certain roads specially so classed. The expenditure shown under the head of "Local Funds" includes the grants-in-aid from "Provincial" which, as already explained, were amalgamated with the assignments from Local funds into one general fund. These Provincial grants-in-aid were first given in the year 1872-73, and from 1876-77 have been much reduced in amount, as the following statement will show:—

Year.	Amount.
1872-73	RS.
1873-74	11,26,000
1874-75	12,00,000
1875-76	12,00,000
1876-77	11,10,000
1877-78	2,43,390
1878-79	1,18,230
1879-80	62,500
... ...	1,25,000

at present is, in the opinion of the Wynaud Planters' Association, the road from the seaport of Calicut to Vythery, a detailed survey and estimate of this line, through the Tambracherry ghaut, is now in progress under the special Public Works officers employed in the Wynaud.

520. In the year 1882, this Government submitted to the Government of India a scheme for the construction of 1,000 miles of light railway or tramway on the existing roads in the tracts of the presidency most liable to famine, and suggested that the tramways should be classed as "protective" works, and should be carried out from funds provided from the Imperial protective grant. The Government of India in reply declined to expend Imperial funds on detached distributary lines, until the main arterial protective lines were completed, and pointed out that the provision of the light distributary lines proposed would only benefit the tracts of country they immediately served, and should therefore be provided by the Local Government. The Madras Government thereupon appointed a committee to consider the best method of connecting the great centres of production and consumption with the main arterial protective lines. Towards the end of the year 1883 the committee submitted their report, and recommended the construction of the following five light metre-gauge lines of railway on existing roads where practicable, and elsewhere on independent embankments:—(1) Goontacull viâ Anantapore to Hindoopore—a length of line of about 100 miles in the Bellary district; (2) Vellore viâ Trinomallee to Villoopooram—a length of line of about 90 miles in the North Arcot and South Arcot districts; (3) Porto Novo viâ Vriddhachellam to Cullacoorchy—a length of about 60 miles in the South Arcot district; (4) Palghaut to Dindigul (a length of about 100 miles in the Coimbatore and Madura districts) or Caroor to Dharapooram—a length of about 60 miles in the Coimbatore district; (5) Madura to Ramnaud, a length of about 70 miles in the Madura district. The recommendations of the committee were generally approved by Government. Lines (2) and (3) are now being surveyed; orders have been issued for the survey of (4) Palghaut to Dindigul on completion of the surveys of (2) and (3); and the consideration of the remaining lines has, for the present, been postponed.

521. Bridges.—In Southern India, where the rivers are not navigable and run dry for the greater part of the year, wide spans and lofty superstructures are seldom called for; economy is studied, and complicated designs are the exception. The chief difficulty is to determine in the first instance the amount of opening or water-way to be given to the bridge. The dry-weather supply is a mere rivulet, but the rainy-season supply is a flood, often over-topping the ill-defined banks and spreading over the adjacent country. The question therefore of assigning a water passage which will be sufficient for the highest floods, without being unduly costly, is one of extreme difficulty; especially when the imperfect data available in regard of exceptional discharges are taken into account. The safest width of opening would in many rivers be inconveniently great. The engineer is therefore obliged to run some risk by confining the floods to narrower bounds; and this causes a heading-up or afflux, in proportion to the perpendicular height of which is the velocity of the stream. Sand also is moved by the smallest velocities, even so little as that of six inches per second, or about one-third of a mile per hour; therefore, as the beds of all Indian rivers and streams are generally sandy, those beds are continually moving, and a question constantly arises as to the depth at which movement extends under certain velocities of current. The liability to error in regard to the water-way is too often exemplified by the destruction of an otherwise well-constructed bridge, swept away by some exceptional flood. On the other hand whilst there is great difficulty in forming accurate designs, the engineer in this part of the country has peculiar facilities in the construction of the bridge. By the native system of well-sinking, cheap and secure foundations are easily obtained, and the absolute drought which prevails during three-fourths of the year enables the engineer to dispense with costly centres and staging. The foundations of the piers and abutments of a bridge must be on soil sufficiently firm to bear the weight of the superstructure and obviate any chance of settling, and deep enough to be safe from the action of the water, increased as that action will generally be by the obstacle presented by the piers. The foundations must be carried through the sand down to the firm soil below, care being taken also that the latter itself is of a good depth. Very often the depth of sandy soil is 10, 20, or 30 feet. "Piling" is rarely resorted

to in Southern India. Well foundations are commonly adopted. When the increased velocity due to the contracted stream is sufficient to injure the bed of the artificial water-way, it becomes necessary to add a flooring between the piers. The flooring, which may be of brick in mortar or of stone flags or boulders, is protected in front and rear by retaining or curtain walls. Aprons also are sometimes provided. The use of iron in bridge-building in India is of modern date; and all the older bridges are of inexpensive masonry, somewhat rough workmanship, and moderate spans. They are sufficiently substantial, however; cost but a fraction of the cost of similar bridges in England; and are suitable to the needs of a poor country. The following may be given as typical road bridges of this Presidency. Bridge over the Rooshcoolya river, of nineteen arches of 30-feet span each; cost Rupees 60,000. Bridge over the Langoolya river at Chicacole, of twenty-four arches of 36-feet span each; cost Rupees 68,000. Lattice girder bridge at Cocanada, of six spans 50 feet each; cost Rupees 80,419. Corteliaur bridge of twenty-three bays each of 50 feet span; cost Rupees 2,37,870. Nuntambaukam bridge across the Adyar on the road from the Mount to Poonamallee, of nine spans of 42 feet each; cost Rupees 1,50,000. Wallajah bridge on the Cooum river, of seven spans; cost Rupees 94,300. Government House bridge on the Cooum river, of eleven spans; cost Rupees 2,08,550. General Hospital bridge on Cochrane's canal, of three arches; cost Rupees 1,12,800. Cooum bar bridge on the South Beach road, of ten spans of 50 feet each; cost Rupees 1,43,000. Adyar river bridge, of sixteen arches; cost Rupees 4,53,000. Palaur bridge at Vellore, of forty-two arches of 43-feet span each; cost Rupees 1,30,699. Coodakadavoo iron bridge on the Tellicherry road, of twenty-six spans of 21 feet each; cost Rupees 61,230. Caroompoya bridge on road from Calicut to Wynaud by Carcoor ghaut, of four spans of 60 feet each; cost Rupees 54,600. Culpauty bridge, 1 mile south of Palghaut Railway station on great western road from Madras to Calicut, four spans of 64 feet each; cost Rupees 30,493. Iron girder bridge across the Eiyaur river, of five spans of 60 feet each; cost Rupees 70,000. Gungaycondaun bridge over Chittaur river on road No. 1 from Palamcottah to Madura, of seven spans of 44 feet each; cost Rupees 20,000. The majority of the above bridges were built many years ago. The following are examples of bridges recently sanctioned. The Veigay bridge, of twenty-one arches each of 40-feet span, in the Madura district; to cost Rupees 1,12,220. The bridge over the Shreeveicoontam anicut, of thirty-three bays each of 38-feet span, in the Tinnevelly district; to cost Rupees 93,000. Iron lattice girder bridge, of three bays each of 53-feet span over the Seetanuddy in the South Canara district; to cost Rupees 45,000. There are no detailed particulars available in the official records as regards bridges constructed by private benefactors. In 1840, the Ambasamoodram subscription bridge of nine elliptical arches, each of 45½ feet span, was built by the Public Works Department over the Tambrapurny in the Tinnevelly district; the cost, Rupees 18,000, being defrayed by private subscriptions. In 1844, the Saulochena bridge, of eleven elliptical arches each of 60-feet span, was built by the Public Works Department over the same river at Palamcottah; the cost, Rupees 51,986, being defrayed by Saulochenam Moodelliar.

522. WATER COMMUNICATIONS.—These are specially valuable in sandy tracts near the coast, where the construction and maintenance of roads is difficult and costly. The figures given below [6] compare the relative cost of conveyance per

[6] COMPARISON OF THE COST OF CONVEYANCE BY CANAL AND ROAD IN THE CASE OF CERTAIN DISTRICTS.

Districts.		Cost of conveyance per ton per mile. By Canal.		By Road.	
		AS.	PIES.	AS.	PIES.
East Coast Canal	Kistna ...	0	3	3	6
	Nellore ...	0	2 to 3	3	2
	Chingleput ...	0	5	3	0
West Coast Canal	Malabar ...	1	0	7	5
	Canara ...	1	0	5	0

ton per mile in the case of certain canals and neighbouring roads. Many water communications are also utilized for irrigation purposes, and all are taken technically under the head of Irrigation.

523. The scheme of the Upper Godavery Navigation Works is now in abeyance, but its revival in one or other form is possible. Its history is sketched below.[7] The drainage system of the Godavery includes the river Wurdah, rising in the Sautpoora hills, and separating the Berars from Nagpore, which is joined by the Peingunga a little before reaching Chanda. The united stream flows on until it receives the Weingunga; and 90 miles lower down is the Godavery, which joins the other rivers after a course of 650 miles from the Western Ghauts. From this point to the sea is a distance of 250 miles. The project has as its object the opening up of the navigation of the river from the cotton mart of Nachangaon, 60 miles south-west of Nagpore, to the seaport of Cocanada in the Godavery district. By making this portion of the river navigable, it was anticipated that the cotton from Hinganghaut, a great emporium for cotton, and a large area of country containing some of the finest cotton fields in India, would be sent down the river to Cocanada, and that, in return, there would be considerable importations up the river. A great trade was thus expected to be developed, and a remunerative return on the outlay necessary to make the river navigable was looked for. The main obstacles to navigation consist of three remarkable rocky barriers, forming rapids only navigable in floods, but, these points excepted, the river is considered to be navigable for shallow river steamers for nine months in the year. The first barrier is at Doomagoodem, 150 miles from the sea, and is 20 miles long. The second is 14 miles long and 220 miles from the sea. The third is 310 miles from the sea, is 35 miles long, is 75 miles distant from Chanda in the Central Provinces, and 115 miles from the cotton mart of Hinganghaut. The works necessary to make navigation practicable consist of the construction of canals round the three barriers by means of anicuts and locks, and the clearance of the river bed in places by blasting. From October 1871, as stated in the note, the work has been in abeyance. Since 1881 an upper subordinate has been stationed at Doomagoodem to attend to necessary repairs and to undertake certain investigations, having for their object an extension and improvement of the existing traffic on that part of the river.

524. An important line of water communication is included in the Malabar and Travancore backwaters parallel to the western coast. This line is sometimes called the West Coast Canal, but consisted originally of mere short artificial cuts connecting the backwaters and rivers near the sea. The great value of this system of natural canals is best shown during the south-west monsoon. At that time there is no difficulty in going from Calicut to Trivandrum; and up to Trichoor inland, which is the nearest point to the Shoranore railway station. In the hot weather the canal is only navigable with difficulty. In the centre of the line of communication is the harbour of Cochin, which is capable of being made the finest close harbour in the world; 10 miles broad at its southern end, and from 10 to 48 feet deep. The canoe boats on the backwaters draw half a foot of water, and carry 2,000 to 3,000 lb. each. The original design was to make the cuts 25 feet wide and 4 feet deep; but they are not at present of those dimensions. Estimates are

[7] SKETCH HISTORY OF THE UPPER GODAVERY NAVIGATION WORKS.—The Upper Godavery navigation project was first urged upon the notice of the Government by Sir Arthur Cotton in 1851. The necessary surveys of the river were commenced in 1854, and by 1861 two lakhs of rupees had been spent in surveys and preliminary operations. In 1861 the works at the first barrier were commenced, and at the beginning of the year 1863, seventy lakhs had been expended on the works at the first and second barriers. In January 1863, Sir Richard Temple inspected the works, and recommended that the works at the first and second barriers and in the river up to the foot of the third barrier should be proceeded with at an estimated cost of Rupees 25,50,000, so that the navigation might be open to the foot of the third barrier (to which point the road from Nagpore to Chanda was to be extended) by May 1865. By August 1865, two-fifths of the anicut at the first barrier, with the other masonry works, were completed. In 1871 the works at the first barrier were almost completed; the works at the second barrier were entirely suspended and were in an incomplete state; and the works at the third barrier were not commenced. There was at that time a steamer towing boats from the second barrier to the coast, and the Weingunga steamer continued the communication between the second and third barriers, but the amount of traffic was small. In August 1871, the Secretary of State proposed that the navigation works should be completed on the smallest possible scale as far as the foot of the third barrier, whence a road should be made to Chanda, but in October of the same year, at the request of the Government of India, the whole scheme was abandoned as involving expenditure which did not give promise of any adequate return. From October 1871, therefore, the work has been in abeyance. In September 1881, in consequence of reports of impending injury at the anicut at the first barrier at Doomagoodem, the Superintending Engineer of the circle visited the anicut; the reports, however, turned out to be without foundation.

now being prepared for the improvement of the section from Tiroor to Cochin, so as to enable boats to make use of the navigation in all states of the season and tide. Subsequently the sections north of Calicut will be taken up.

525. The backwaters of the East Coast are connected and extended in a similar manner. They form the Buckingham canal, a work which will be found described in the article on Irrigation.

526. HARBOURS.—The officers of the Public Works Department have at various times been called upon to submit reports and estimates for the improvements of the harbours of the East and West Coasts of the Presidency,[8] and the department has also executed various marine works from time to time.

527. The improvement of the Cocanada harbour by means of lengthening the groynes at the mouth of the Cocanada river has engaged the attention of the department for some time, and in the year 1882-83 an estimate of Rupees 53,608 was sanctioned for the purpose. A decision has also been arrived at with regard to the improvement of the ports of Vizagapatam, Cochin, and Gopalpore. At the first port the project for the erection of an iron pier, which has been for some time under consideration, is now held in abeyance; and it has been decided that no permanent improvement of the Cochin harbour is possible except at a prohibitive cost. With regard to Gopalpore, the erection of a wrought-iron screw pier has been favorably viewed by Government, and the preparation of a detailed estimate for a pier, 900 feet in length and roughly estimated to cost about two lakhs, is now being undertaken by the Madras contractors, Messrs. Massey and Co.

528. The Paumben Pass [9] is the narrow artificial strait running north and south from Palk's Straits into the Gulf of Manaar, and separating the Ramnaud zemindarry, situated on the mainland in the Madura district, from the island of Rameswaram. The works here undertaken consist mainly of blasting and dredging operations with a view to gradually opening the pass to larger craft. They have on the whole been highly successful, and have materially benefited the coasting

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[8] SKETCH HISTORY OF INQUIRIES REGARDING MADRAS ANCHORAGE AND HARBOURS.—The first detailed inquiry into Madras anchorages was in 1870, when Mr. George Robertson, a Harbour Engineer, made a minute and careful inspection of the ports of Mangalore, Cannanore, Calicut, Beypore, Cochin, and Quilon on the West Coast; and of Tuticorin, Paumben pass, Negapatam, Madras, and Cocanada on the East Coast. He considered Quilon capable of being made the finest close harbour in India, and published an elaborate report embodying certain recommendations regarding various ports. His recommendations were acted upon by Government, and the Public Works Department was accordingly ordered to execute certain improvements which were forthwith carried out, principally to the harbours of Mangalore and Cochin. In the following year Mr. Robertson again visited the Paumben pass to report on the subject of a ship canal through the island of Paumben. In the year 1875-76, the works of the Madras Harbour, designed by Mr. W. Parkes, were commenced. The next inspection of Madras anchorages was made in the year 1881 by Mr. Parkes, who visited the harbours of Vizagapatam, Bimlipatam, Calingapatam and Quilon, in order to report on their capabilities for the formation of first-class habours. He reported, in due course, that the natural advantages of Vizagapatam were superior to those of Bimlipatam or Calingapatam, but that, at all these three ports, it was absolutely out of the question to construct first-class harbours capable of giving remunerative returns from the trade of the port. He recommended, however, that hydrographic surveys of the three ports should be made, and in accordance with his suggestion a hydrographic survey of the port of Vizagapatam was undertaken by the Public Works Department in the year 1883, but the work was subsequently transferred to the Indian Marine Survey Department. The report by Mr. Parkes on the Quilon harbour was of a much more favorable character. He considered that a well-sheltered harbour could be made at a moderate cost, and that by means of a short canal the harbour could be connected with the West Coast canal system. The question of the improvements to the Quilon harbour is now under the consideration of the Travancore circar.

[9] SKETCH HISTORY OF WORKS AT THE PAUMBEN PASS.—Originally this gap was bridged by a continuous isthmus, but in the year 1480 a violent storm breached the isthmus and permanently separated the island of Rameswaram from the mainland of the Madura district, thus making a break in the great connection link of islands, rocks, and shoals that separate Ceylon from the mainland of India. The natural passage thus made was, however, impracticable for ships, being too shallow, and also being obstructed by two parallel ridges of rock. The first proposal to clear and deepen the passage so as to allow of ships passing through and thus shortening the voyage from India to the island of Ceylon, was made about the year 1800, but no practical action in the matter was taken until 1882, when a survey was made by Ensign (now Sir Arthur) Cotton. The survey being favourable, various operations were begun on a small scale in the year 1828, but it was not until the year 1838 that the work of deepening and widening the channel was regularly started. From that date up to the present time, the works have been continually in progress. The work was first started in 1838 by the employment of gangs of convicts, under the supervision of Madras Sappers and Miners, a special Engineer officer being placed in charge under the direct control of the Chief Engineer, but, after the organization of the regular Public Works department in 1858, the works were directed by the Public Works officers in charge of the Madura district. In 1873, the jail at Paumben was abolished, and, from that date, convicts under the supervision of the Public Works department were no longer employed on the works. Finally, in 1879, the works were transferred from the Public Works department to the Marine department. Tracing the progress of the works, it is found that in 1844 the passage had been deepened to 8 feet of water at low spring tides, while the total expenditure up to that date was Rupees 1,55,950. By 1854, the depth had been increased to 10½ feet, the passage was navigable for keeled boats of 200 and the total expenditure had amounted to Rupees 3,25,000. In 1875, the passage had been deepened to 14 feet and width of 80 feet. Originally the works were started merely with the intention of providing a passage for small sailing vessels, but in 1854 Colonel Cotton projected a scheme for making the pass available for all classes of vessels, and also for the large mail steamers between Calcutta and Suez. The weight of marine and nautical opinion was, however, against this scheme, which, it was shown, would involve a very great expenditure without an adequate return. This project was definitely put aside in favour of the original scheme.

trade of sailing vessels, by which it is largely used. During the official year 1883-84, the number of vessels which passed through the Paumben pass was 1,485, having a total tonnage of 176,743 tons, while the pilotage fees realized therefrom were Rupees 19,402.

529. A London Company, Messrs. Grindrod, Jenkins and Company, have a project for the cutting of a canal, to be entitled the Paumben ship canal,[10] through the island of Rameswaram. The company's scheme, in addition to the cutting of a large ship canal, includes the provision of dry docks; the capital to be raised in England. The Government have granted to this company a general concession for cutting the canal through the island of Rameswaram, subject to the condition that, the land being private property, the company shall arrange terms of acquisition with the owners, and shall submit for approval the scale of dues which it is proposed to levy on all vessels making use of the canal. At the end of the year 1883-84, the agents of the company were engaged in arranging with the several owners of property in the island of Rameswaram, the terms of compensation for land to be taken up by the canal.

530. The Madras harbour works are the most important marine operation now in hand by the Public Works department. They are at the present moment, however, for the greater part in abeyance, as a consequence of damage done by a severe cyclone in 1881. The history of these works is given in the foot-note.[11]

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[10] SKETCH HISTORY OF PROJECTS FOR SHIP CANAL BETWEEN MADRAS AND CEYLON.—A project for cutting a ship canal through the island of Manaar was mooted as long ago as the year 1832. Some time after that period, the idea of cutting a large ship canal through the adjoining island of Rameswaram was started, and in the year 1862 a Parliamentary Committee took evidence on the practicability of the project, and the benefits to be derived from it. In the same year, Sir W. Denison, the Governor of Madras, visited Rameswaram, and selected, as suitable for a ship canal, a line about 2 miles in length through the island of Rameswaram and about 2¾ miles east of the Paumben light-house. In the year 1870, Sir Hercules Robinson, the Governor of Ceylon, and other officials of the Ceylon Government visited Rameswaram, and a line for a ship canal was proposed by Mr. Stoddard about three-fourths of a mile to the west of that selected by Sir W. Denison. In the following year, Admiral Sir James Elphinstone carefully inspected the locality, and while deciding against any attempt to adopt the Paumben pass for large vessels—a scheme which had also been considered together with that of cutting a ship canal through the island of Rameswaram—on the ground that such a long and tortuous passage could not be made safe for big ships, advocated the cutting of a canal, 7½ miles in length, through the Ramnaud promontory on the mainland, together with the formation of a large sheltered harbour. In the same year, a discussion regarding the various proposals made for a ship canal was raised in Parliament, and in the year 1872, Mr. George Robertson was specially deputed to report on the various schemes which had been brought forward up to that time. The result of Mr. Robertson's inquiries was to recommend as most suitable for the cutting of a ship canal a line, through the eastern end of the island of Rameswaram, one mile east of the Paumben light-house, 1¾ miles west of the line selected by Sir W. Denison in 1862, and one mile west of that chosen by Mr. Stoddard. The line selected by Mr. Robertson was 2¼ miles from water-line to water-line, and was considered by him to be better sheltered at its entrance from the swell of the south-west monsoon than either of the other lines proposed. Nothing more was done regarding the project for a ship canal until the year 1881, when the Chief Engineer and Master Attendant, Madras, visited Rameswaram, reviewed the various schemes already detailed, and reported that, if ever the scheme for a ship canal was seriously thought of, preference should be given to a line in the neighbourhood of that selected by Sir W. Denison. On this report, borings along the line chosen by Sir W. Denison were ordered by Government, and were subsequently carried out by the Marine department. The steps above detailed were taken with a view to sift the merits of the different schemes proposed from time to time for a ship canal. In the year 1882, practical effect was, for the first time, given to the results of these investigations, by the formation of an English company as described in the text.

[11] SKETCH HISTORY OF THE CONSTRUCTION OF THE MADRAS HARBOUR WORKS—(1) *Works prior to the cyclone of 1881.*—The design for the construction of the Madras harbour was made by Mr. Parkes, a Civil Engineer in London, and the original estimate, amounting to Rupees 50,50,000, was sanctioned in March 1875 by the Secretary of State. The expenditure on the work was to be provided from Imperial funds from money raised on loan. The design consisted of a close harbour, providing accommodation for 13 large ships to swing at their moorings, in addition to space for several smaller craft. The enclosed space was to be formed by two breakwaters, equidistant from the existing iron screw pile pier, running parallel to, and at a distance of 1,000 yards from, each other, to a length of 1,200 yards into 7 fathoms water, where, on a curve of 568 feet radius, both were to turn inwards at right angles, leaving between them an entrance to the enclosure of 450 feet in width. The two breakwaters were to be constructed of packet concrete blocks, each about 27 tons in weight, not built in one bonded mass, but built in two parallel walls placed side by side in juxtaposition, having a vertical point between them, and laid on a rubble base of from 4 to 20 feet in depth. The works were begun in the official year 1875-76, and by the end of the year an expenditure of Rupees 3,41,703 had been incurred upon them. During May, June, July 1876, the works were carried on under difficulties owing to the heavy surf prevailing. In March 1877, it was discovered by the divers that the rubble base foundation of the north pier was entirely buried in sand. For several months every possible means was taken to remove this sand accumulation by dredging, by working in caissons, by jets of steam and jets of water at high pressure, but without avail. Finally, the Superintendent of the works determined to build the concrete blocks upon the sand and allow them to sink through to the rubble base, and this was accordingly done. Owing to this serious obstacle, the works were much retarded during the greater part of the year 1877-78. In May 1877, the works were severely tried by a cyclonic storm, but suffered no damage of any importance, and hardly any settlement occurred in the work at either pier. In November and December 1878, the works were greatly interrupted by bad weather, and in January and March 1879 by the breaking down of the titan cranes, and the delay in the receipt of stores from England. At the end of the official year 1878-79, the total expenditure on the harbour amounted to Rupees 26,12,822, and it was estimated that the works would be completed by March 1881. Considerable progress was made on the works during the official year 1879-80, and by the end of the year the north pier had advanced to a total length of 2,745 feet, of which the last 445 feet was built on a curve of 568 feet radius, and the south pier had been carried to a total length of 2,146 feet. During the official year 1880-81, the progress was more considerable than in any previous year. At the end of the year, the expenditure amounted to a grand total of Rupees 53,52,890; the north pier was advanced to a total length from the shore of 3,845 feet or within 21 feet of its termination; the south pier was carried to a total length of 3,635 feet from the shore; while both piers terminated in water 8 fathoms below mean sea level, and the distance between their terminations was only 890 feet, or 340 feet more than the

531. LAW.—There are no legal enactments specially affecting this branch. The law relating to roads belongs now rather to the subject of Local Funds.

532. CONSTITUTION OF BRANCH.—The establishment maintained in the Branch and its departmental history have already been described in the preliminary article.

533. PROCEDURE.—The procedure in this Branch is detailed in Chapter VIII of the Public Works Code. The sanction and assignment of funds to all buildings of importance is reserved in the hands of Government. The power to sanction minor buildings is entrusted to the Superintending Engineers of Circles and a small allotment is placed annually at their disposal to meet the cost. The final acceptance of all professional details in the case of major buildings rests with the Chief Engineer, on whose opinion Government pass or refuse sanction to the projects submitted to them. The Superintending Engineers are held solely responsible for the engineering details, cost, and sufficiency of estimates for minor buildings. As to accommodation, internal requirements, and site, the departments for whom the buildings are intended, are fully consulted. With a view to the accurate record of expenditure incurred on the different departmental services, the public buildings connected with each are classed under a corresponding "head," and the

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proposed ultimate width of the harbour entrance, which it had been decided to increase to a total width of 550 feet instead of 450 feet as originally designed by Mr. Parkes. By October 1881, both the north and south pier had been brought to their full length, so as to leave an open space of 550 feet as an entrance, but on the 12th November 1881 the works were greatly damaged by a cyclone which struck Madras with great suddenness. All further progress on the harbour works was stopped in consequence. On 29th, 30th and 31st December 1881, another cyclone passed over Madras; but, owing to its centre being near, the sea was not very high, and no further damage was caused to the works. Up to 12th November 1881, when the damages caused by the cyclone occurred, the total amount of work done consisted of 7,836 lineal feet of breakwater constructed, 13,309 concrete blocks set in position, 13,643 concrete blocks made and 930,758 tons of stone deposited for the surf banks and rubble bases. The total expenditure incurred up to the same date was Rupees 58,09,629. The construction of the Madras harbour works may be said to have terminated with the cyclone of November, and at the end of 1883-84 was still deferred pending the decision regarding the revised design to be given to the work. (2) *Damages caused by the cyclone of November 1881, and works since undertaken.*—The damages due by the cyclone of November 1881 were half mile of breakwater breached, and, on an average, the two top courses of concrete blocks thrown into the harbour; two titan cranes thrown over and destroyed; rubble base lowered and spread out; 1½ miles of single line railway carried away; twin barges "Salisbury" and "Hobart" foundered and lost with the loss of 13 lives; besides minor damages such as the loss of small boats, injury to the iron pier, encroachments by the sea and damage of private property. During the remainder of the official year 1881-82 subsequent to the cyclone, the chief work done consisted of repairs, such as relaying the lines of railway, levelling up with concrete the top of the north pier, clamping together the walls of the north pier, and repairing and strengthening the beach protective works. From April 1882 to March 1883 the work done was limited to necessary repairs, block-making and protection of the shore, which had been much encroached upon by the sea, owing largely to the obstruction caused by the harbour walls. In March 1883, all active work was stopped, except repairs to plant, and the harbour staff was reduced as much as possible, pending the resumption of operations, when the details of the design for the restoration of the harbour had been definitely settled. Up to the end of the official year 1883-84, the additional expenditure incurred since the cyclone of November 1881 was only Rupees 8,69,233, while the total expenditure incurred was Rupees 66,78,862. (3) *Measures taken for the completion of the Harbour.*—Shortly after the cyclone of November 1881, reports regarding the damage done, accompanied by proposals for completing the harbour, were drawn up by Mr. Parkes, the Chief Engineer, Public Works department, and officers specially deputed by the Government of India, and were forwarded to the Secretary of State, who referred them to a London committee consisting of Sir J. Hawkshaw, Sir J. Coode and Professor Stokes. The Indian reports showed a consensus of opinion on three points, viz., that (1) the piers had up to the occurrence of the cyclone been pushed forward on a plan which insured both economy and expedition in a marked degree; (2) shelter had thus in great measure been provided in all ordinary weather, and still existed to the great advantage of the port; (3) the injuries caused by the cyclone could be made good, and the work rendered safe, in about three years, at a cost which would still make the harbour a comparatively cheap work of its kind. In January 1883, the London committee issued their report, criticised the system of construction adopted by Mr. Parkes, which—while admitting that it conduced to rapidity of construction—they remarked they could not recommend were the work to be begun again, but should prefer to see the work bonded throughout. They reviewed three alternative systems of reconstruction, expressed a favourable opinion regarding the safety of the "random-block" system, and made certain definite recommendations regarding the restoration of the work, of which the principal points were to the effect, first, that the extra strength required should be given by the addition of a large wave-breaker, consisting of concrete blocks tipped over the seaward faces of the work; secondly, that the piers should be raised to a considerably higher level than was originally contemplated, and should be, when finished, not less than 12 feet above high-water mark; and thirdly, that the entrance should be narrowed to 450 feet. On receipt of this report, the Government appointed a Madras committee to frame detailed estimates, and to consider the best way to give effect to the proposals of the London committee. In June 1883, the Madras committee issued their report, accompanied by estimates of the cost of completing the works on the several systems suggested by the London committee. The estimates showed that the works could be completed for a sum of from 45 to 50 lakhs, according to the system and details of reconstruction followed. The committee expressed a decided preference for the "random-block" system of construction, and made two important proposals—first, the closing of the present eastern entrance to the harbour, and the opening of a new entrance, 500 feet in width, in from 7 to 7½ fathoms of water, at the north-east angle of the harbour, with a protecting horn 650 feet long; secondly, the omission of the wave-breaker of concrete blocks along the south pier, which they considered was not subject to heavy seas, and was sufficiently protected by sand accumulations. This report was subsequently referred by the Secretary of State to the London committee, who, in March 1884, issued a second report, in which they adhered to their former decision on all points, and consequently recommended that the entrance to the harbour should be retained in its original position, and should be narrowed to 450 feet—an opinion, which was accordingly endorsed by the Secretary of State. To this latter decision, the Madras Government, acting on the advice of their professional advisers and supported by the entire nautical and commercial interests of the port, have replied; they have pointed out that the recommendations of the London committee, regarding the retention of the eastern entrance, were based upon incomplete information, and have recommended, as a point of the first importance, that the harbour entrance should be placed at the north-east angle of the harbour, in from 7 to 7½ fathoms of water, as recommended by the Madras committee. At this stage the question of the restoration of the harbour now stands.

outlay on them is thus separately registered. The heads are for Imperial buildings, that is, buildings the cost of which is met from Imperial funds :—(1) Military, (2) Salt, (3) Post Office, (4) Telegraph, (5) Churches and burial-grounds. The "Provincial" buildings, the cost of which falls on provincial revenue are :—(1) Administration, (2) Minor departments, (3) Law and Justice, (4) Ecclesiastical, (5) Jails, (6) Police, (7) Educational, (8) Medical, (9) Forest, (10) Customs buildings, (11) Miscellaneous works. The Local Fund Board of a district inaugurates all improvements to the communications within the limit of that district, and after sanction from Government distributes the funds to meet the outlay on such improvements and on the maintenance of existing lines, the connection of the Public Works Department with such works being limited to the scrutiny of such engineering details as the Government may consider beyond the competence of the Board to deal with, and in special cases to the general supervision of important bridges. A detailed abstract of the more general rules of procedure in connection with this Branch is shown in the foot-note.[12]

PUBLIC WORKS—IRRIGATION BRANCH.

534. INTRODUCTION.—The irrigation branch [1] deals with works of irrigation and internal navigation and with connected agricultural works, such as river conservancy, river embankments, drainages, &c.

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[12] ABSTRACT OF RULES OF PROCEDURE IN THE BUILDINGS AND ROADS BRANCH.—(1) *Important public buildings.*—All important public buildings will be constructed and repaired by the Executive Engineer ; but any such buildings may be repaired by the Civil officers whenever the Government may consider it convenient to direct such a course of proceeding ; in the latter case the necessary funds will be provided in the Civil budget. (2) *Plans of public buildings.*—All public buildings, subject to the orders of the Chief Engineer, will be borne on the books of the Public Works Department, and the Executive Engineer in charge will be expected as far as possible to maintain proper plans of them. (3) *Buildings of historical and architectural interest.*—All buildings and monuments of historical or architectural interest should be carefully attended to as a matter of duty, without any special orders of Government. (4) *Relinquishment of public buildings.*—The department that vacates and relinquishes the use of a public building should formally make over the building to the custody of the Public Works Department; Public Works officers will, after communication with the head of the department previously occupying the building, and with the other heads of departments in the district, obtain orders from Government as to the future disposal of the building, submitting whatever correspondence may have taken place on the subject. Insurances of Government buildings are not to be effected. (5) *Government buildings used for theatrical purposes.*—As a theatre is particularly liable to fire, no Government buildings in which stores or other Government property are kept should be used for theatrical purposes. (6) *Applications for new buildings.*—Applications for new buildings and for additions or alterations to existing buildings required for the use of any department, must be made by the officer of the department concerned, in communication with the Executive Engineer. (7) *Buildings required by the Revenue Department.*—Plans and estimates for buildings required by the Revenue Department will be submitted by the Executive Engineer to the Superintending Engineer, who, after scrutiny, will forward them to the Collector of the district for approval and countersignature. If the Collector be satisfied as to the suitableness of the proposed accommodation, &c., he will transmit the papers through the Board of Revenue to Government in the Revenue Department, by whom, if approved, they will be transferred to the Public Works Department for disposal after final scrutiny by the Chief Engineer. (8) *Court-houses.*—In the case of plans and estimates for Court-houses, the documents will be forwarded by the Superintending Engineer to the District Judges for transmission, through the High Court, to Government in the Judicial Department, and the same principle will be followed with regard to estimates for Registration, Police, Jail and other Civil departments. The Superintending Engineer will forward the documents to the head of the department concerned, who will submit them to Government in the Department of the Secretariat from which he receives his orders. (9) *Military buildings.*—Plans and estimates for military buildings will be forwarded by Superintending Engineers for approval to the General Officer Commanding the District or Division. The General officer will transmit the papers to the Quartermaster-General, who, after obtaining the approval of His Excellency the Commander-in-Chief, will submit them direct to Government in the Military Department. After approval in the Military Department, they will be transferred to the Public Works Department for disposal after final scrutiny by the Chief Engineer. (10) *Other departmental buildings.*—In the case of Ordnance, Commissariat, or other departmental buildings, the approval of the head of the department should be obtained before the plans and estimates are submitted to His Excellency the Commander-in-Chief. (11) *Sites of buildings.*—The site of every building should, if possible, be definitely settled before the detailed designs and estimates are prepared. (12) *Consultation of local authorities.*—In all cases local authorities must be consulted as to the convenience of a site. (13) *Powder magazines.*—Powder magazines and all buildings, which from their height or exposed situation are likely to be struck with lightning, should be provided with lightning conductors on the system laid down in the code of instructions for the guidance of Public Works Officers in the erection and testing lightning conductors. (14) *Estimates.*—Estimates for buildings will, as a rule, be accompanied by drawings as follows :—"a" A block plan showing the situation of the proposed building with reference to others ; the various features in proximity to the intended site ; meridian line ; prevailing direction of the wind ; and all other matters capable of graphic delineation which may have influenced the selection. "b" A ground plan or plans of the building, foundations, and various storeys, as required. "c" Sections through the buildings in such directions as may be necessary to exhibit the intended form and dimensions of every part. "d" Elevations where necessary. "e" A plan or plans showing the general arrangement and distribution of the timbers or iron work of the floors and roof, and such working drawings as may enable the officer responsible for the project to judge of the details. (15) *Projects for the construction of new roads.*—Projects for the construction of new roads must be accompanied by the following plans :—"a" An index map. "b" A detailed survey and longitudinal sections. "c" Sheets of transverse sections. "d" Drawings of all the masonry, iron or timber works, in the order in which they occur in the line.

[1] SKETCH HISTORY OF THE IRRIGATION BRANCH AND THE FINANCIAL POLICY CONNECTED THEREWITH—*First constitution of branch.*—The branch was first constituted in the year 1867, when it was made a subordinate branch of the Public Works department by the appointment of a Chief Engineer for Irrigation, and early in 1877 it was made a distinct and

535. General View of Irrigation Works.—The geographical characteristics of the Presidency will be found detailed in the article on Geography and in Vol. II, App. I. The principal feature in the Madras system of irrigation is the dams or 'anicuts' over rivers flowing across the peninsula from the Western Ghauts, placed just above their deltas. The chief river deltas, which have been the scenes of these remunerative labours, are those of the Godavery, the Kistna, the Pennair, the Cauvery, and the Tambrapurny, supplemented by a large system of irrigating channels, or channels and tanks combined. The yearly rainfall along this eastern coast or western shore of the Bay of Bengal is moderate, and insufficient for the

independent branch in direct communication with Government. (2) *First definition of the two classes of expenditure on works.*—Previous to the year 1854, expenditure incurred on irrigation works of all descriptions was treated as ordinary expenditure, and was charged against the general revenues of the year. Under this system the large irrigation works of the Godavery, Kistna, and Cauvery deltas were begun. After 1854, as it was recognised that the system of charging the cost of large works expected to prove remunerative against the general yearly revenue was erroneous, a distinction was made between the expenditure incurred on "*a*" the maintenance and repair of existing irrigation works, and the construction of the smaller works necessary for the due development of irrigation, which it was decided to charge as formerly against the yearly revenues of the country; and "*b*" the construction and extension of large irrigation works of permanent public utility, calculated materially to increase the wealth and promote the prosperity of the country, which were to be constructed by means of money raised on loan, and were to be treated as financial concerns by opening for them capital and revenue accounts, so that their exact financial position could at any time be ascertained. The outbreak of the mutiny prevented the prosecution of the schemes for promoting irrigation by means of money raised on loan, and it was not until 1858 that the Madras Irrigation and Canal Company was formed with a Government guarantee of 5 per cent. This work was financially a failure, and warned by this example and by experience elsewhere of the unsuitability of the agency of private companies in the construction of irrigation works, Government have constructed all other irrigation works in the Madras Presidency by the direct agency of their own officers. This decision was arrived at in 1867, when the policy of guaranteed companies for the construction of irrigation works was finally abandoned in favour of what was then called the "Extraordinary" Public Works policy, whereby large works of irrigation expected to prove remunerative were to be constructed by Government from money borrowed annually by the State, when the ordinary revenues were insufficient for the purpose. The capital expenditure incurred on the large irrigation works of the Godavery, Kistna, Cauvery and Pennair rivers continued up to the year 1879 in accordance with the policy above stated, to be met partly from Loan Funds and partly from ordinary revenue. In 1879 however, the expenditure under the latter head was written back to Loan Funds in the accounts, as if constructed from money raised on loan. The reasons why this course became necessary in 1879 may be thus traced. The understanding on which "Extraordinary" Public Works were originally undertaken was that, if money was available from the general revenue of the country, it was to be made use of, and borrowing was only to be resorted to in case of need. But, as it was found impossible to determine exactly the profit derived from expenditure incurred from Loan Funds, the works having been carried out partly from Loan Funds and partly from ordinary revenue, it was ruled in 1879 that the entire cost of the works, from whatever source the expenditure was met, should be brought together in one account, and that no part of the cost of construction or improvements to such works should thereafter be charged to ordinary revenue. (3) *The three stages of the question.*—From 1867 the distinction between the two classes of works (*a*) and (*b*) has been strictly observed, while practically the cost of the first-named works has, since 1854 to the present time, alone been charged as ordinary expenditure against the general yearly revenue of the country, and those in the latter category have virtually been made with borrowed money, as the expenditure incurred on them from ordinary revenue was comparatively small. The expenditure upon the extension of irrigation may, therefore, be said to have passed through three phases:—first from the establishment of British rule to 1854, when the annual disbursements were comparatively small, and were met from yearly revenue; secondly, from 1854 to 1867 during which time the experiment of private companies was tried in addition; thirdly, from 1867, the date of the "Extraordinary" Public Works policy under which all irrigation works were undertaken by the State, and a certain sum was devoted annually to their prosecution. (4) *Introduction of the term Productive and new rules.*—In 1876-77 the term "Extraordinary" was abandoned in favour of that of "Productive;" and very strict rules (which have since that date been reiterated with increased emphasis) were laid down, limiting the outlay of borrowed money to works which were likely to be remunerative, by yielding in the shape of annual income within ten years after completion a sum equal to the interest on the money expended on their construction. In point of fact, from the very commencement, in 1867, of the policy embodied in the Productive Public Works scheme, it was assumed that the works comprised in the category of, and sanctioned as, Productive Public Works, would prove remunerative, and orders on the subject were issued, though it was not until 1876-77 that stringent limitations regarding the certainty of their financial success were insisted upon before works could be so classed. How far this assumption has been realised in the case of the Productive Public Works of the Presidency will be seen from the following figures, exhibiting the total gain or loss to the State up to the end of 1882-83 from outlay on works originally so classed furnished by the Public Works Department:—

Systems.	Total estimate including indirect charges.	Total outlay to end of 1882-83.	Total revenue due to works to end of 1882-83.	Charges to end of 1882-83.			Surplus revenue after payment of all charges.	Percentage of surplus revenue on capital outlay.
				Working expenses.	Interest.	Total.		
Productive Public Works.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	
1. Godavery Delta system.	1,30,32,653	1,10,20,241	3,21,40,280	83,09,475	81,74,910	1,64,84,385	1,56,55,895	142·06
2. Kistna do. do.	1,49,00,944	63,30,628	1,49,75,292	46,01,857	48,19,225	94,21,082	55,54,210	87·74
3. Pennair Anicut do.	18,94,784	16,65,159	13,61,115	1,51,356	10,74,532	12,25,888	1,35,227	8·12
4. Cauvery Delta do.	18,54,847	11,50,238	1,38,42,450	— 1,85,934	11,60,217	9,74,283	1,28,68,167	1118·74
5. Sreeveicoontam Anicut system	14,76,806	13,12,135	6,11,579	2,64,497	5,92,518	8,57,015	— 2,45,436	— 18·71
Total ...	3,31,66,034	2,14,78,401	6,29,30,716	1,31,41,251	1,58,21,402	2,89,62,653	3,39,68,063	158·15

(5) *Irrigation and Canal Company.*—The Madras Irrigation and Canal Company's canal, which was purchased by Government in 1882, and was classed as a Productive Public Works in the same year, was, as has already been

satisfactory production of rice, the crop which is most abundantly cultivated. In Ganjam alone the greater part of the irrigation is sufficiently supplied without artificial assistance. At Vizagapatam it is 45 inches, at Madras 50, but further south only 30 and 22. This may be classed as the first zone of country naturally in need of irrigation. The second irrigable zone may be said to extend down the centre of the peninsula to leeward of the Western Ghauts. It comprises within this Presidency a great part of the Carnatic; and is watered by the upper courses of the rivers just mentioned, supplemented by a very large number of tanks. The rainfall here is under 30 inches. This zone is identical in character with the eastern half of the Bombay Presidency, and a great part of the Nizam's territory and of Mysore. The third irrigable zone may be said to consist of the Ceded Districts of Bellary, Kurnool, and Cuddapah, with a rainfall at Bellary of only 22 inches. The Toongabudra flows round the northern borders of Bellary and Kurnool, but the country beyond the mere valley of the river has been in need of water for centuries. The failure of the monsoon is frequent in this zone.

536. The irrigation works themselves vary alike in magnitude, in character, and in origin. There are works that yearly irrigate 1,000 square miles; others that do not irrigate 5 acres. Some derive their water from the great perennial rivers; others from streams and local drainages, or from the rainfall of half a square mile ponded up in a valley. Some works date from periods of which there is no historical record; others are the latest outcome of British engineering science.

537. The most northern of the dam works, in the Godavery and Kistna deltas, depend very little on tanks for the distribution of water. The weir is thrown across the river at the apex of each delta and thence proceed a system of large canals and distributary channels, some of which are adapted for navigation and form the highways of the country. Further south, in Nellore, the Pennair has a catchment basin of uncertain supply, and subject to considerable floods. The water here is diverted into two old native channels recently improved and extended, and these supply a great series of tanks. Advantage is taken of every fresh in the river to replenish the tanks, and so the irrigation is carried over the periods when the river itself is dry. Further south at the rivers Corteliaur, Palaur, Cheyaur, and Vellaur in North and South Arcot and Chingleput, irrigation is effected in a like manner by a combination of channels and tanks. In most cases these existed before the British rule, but the supply of the tanks has been rendered more certain by the erection of weirs across the rivers, and many tanks have been brought into connection with the rivers which formerly depended solely on local rainfall. The Palaur drains an extensive basin, but its upper waters are so carefully stored in the tank system of Mysore, that in years of ordinary rainfall but little is available

explained, constructed by a private company, and has therefore purposely been excluded from the foregoing statement as embodying the result of a different policy. The enormous loss which this work has entailed upon the State is shown by the following figures taken to the end of 1882-83 :—

Capital Expenditure.	RS.
Amount paid by the Secretary of State to the company for the purchase of the canal ...	1,76,25,050
Revenue Receipts.	
Total irrigation revenue from the commencement of the work to the end of 1882-83 ...	10,73,097
Total navigation and other receipts collected up to 31st March 1883 ...	2,07,764
Total ...	12,80,861
Charges.	
Total working expenses to end of 1882-83 ...	18,55,385
Total interest charges ...	1,35,60,282
Total ...	1,54,15,667
Net loss ...	1,41,34,806

(6) *Protective works.*—About the year 1881 a new class of works, called Protective Public Works, was instituted and may be defined as works, which, although not directly remunerative to the extent which would justify their inclusion in the class of Productive Public Works, are calculated to afford a protection against famine, and to guard against a probable future expenditure in relief of the population. A certain proportion of the total sum of 1½ millions sterling annually reserved for "Famine Relief and Insurance" purposes is appropriated for works of this class.

for irrigation below. Opportunity is taken of the short-lasting floods to fill the long series of tanks by rapidly-discharging channels, and these were very materially improved by the works undertaken for relief in the famine of 1876–78. The Cauvery has from the earliest times been used for irrigation from its source in the Coorg mountains to its delta in the Tanjore district. It waters probably a greater area than any river in India. In the upper part of its course, as it flows through the Coimbatore, Salem, and Trichinopoly districts, along with its tributaries, the Bhawany, the Noyil, and the Amravatty, it feeds a whole succession of irrigating channels; while in the Tanjore delta every one of its natural branches is utilized to irrigate rice lands. The irrigation of the Noyil is effected by a series of tanks in the ordinary way. The small channels of the Bhawany, Amravatty, and Upper Cauvery irrigate directly from their banks, and their supply is maintained either by weirs across the rivers, or by temporary dams made year after year. The strip they irrigate is necessarily long and narrow, for they never rise out of the valleys, but following a serpentine course along the contours, water every field between them and the rivers. In the deltaic branches of the Cauvery, the water surface in floods is generally higher than the surrounding country. These are kept from overflowing by artificial banks; minor channels have been drawn from them, and the whole country is a network of streams. The system is very ancient, and was in full operation when Tanjore became a British province; but its continuance was endangered by the increasing tendency of the Cauvery waters to flow down the Coleroon, which forms the northern boundary of the delta, and to desert the southern channels on which alone the irrigation depended. This was effectually prevented in 1836 by Sir A. Cotton's great work—the Upper Coleroon Anicut at the head of the delta—which enables the engineer to turn the whole supply of the river into the different irrigating streams. From time to time dams, regulators, and escape weirs have been built throughout the delta, with the object of systematically distributing the water and disposing of floods. In Tanjore, therefore, the numerous branches of the Cauvery take the place of the canals in the northern deltas. The distributary channels are as much as 20 miles long, and irrigate a number of villages. In the Madura district some irrigation is effected by channels drawn from the river Veigay to feed tanks. But the supply of this river is uncertain. The channels too are of a very rude description. To improve and extend this irrigation, it has been proposed to construct a dam across the Periyaur river, which rises in the Western Ghauts and flows to the sea westward, and to divert its waters by a tunnel through the ridge into the Veigay. This district is so covered with tanks that there seems to be more water than land. They are very shallow and much filled with silt. The Tambrapurny in Tinnevelly has a more constant flow than any river in Southern India, excepting the Godavery, the Kistna, and the Cauvery. Along its course is a valuable strip of irrigation of 65,000 acres, yielding a consolidated revenue to Government of about eight lakhs of rupees. It is carried on by means of tanks supplied by channels, into which the river water is diverted by eight weirs. Seven of these are of old native construction; the eighth or lowest has been built within the last ten years, and is termed the Sreeveicoontam anicut. The attempt to provide for the irrigation of the arid plains of the Ceded Districts by means of irrigation from a large artificial canal, which should also be navigable, will be detailed hereafter. Apart from the rivers, the rain-fed tanks which exist in vast numbers, large and small, throughout Madras play a most important part. Most of these are of old native construction, although some few of them have been enlarged by the British Government, and their systematic improvement is being carried on year by year as far as money and establishment are available. Tanks are formed in various ways, according to the accidents of the ground. Embankments are thrown across the gorges of valleys, high enough to retain a volume of water proportioned to the irrigable acres situated below. Descending terraces of land are occupied by a succession of reservoirs, the higher feeding the lower from its surplus supply. Long slopes have portions embanked on three sides, and the included space forms a storage area for such volume of water as local wants may call for. The most formidable cause of injury to tanks is the action of waves on the embankments during gales; it is counteracted by long slopes on the water face of the bank, and protecting coverings of rough stones. Most tanks are supplied with a waste weir, locally called a

calingula, generally of masonry, built in the land near one end. It is so much lower than the bank itself that any superabundant water can pass over it. According to the native practice, towards the end of the rainy season, the calingula is closed, so as to keep the tank quite full. This is done by means of straw and turf, the crown of the calingula being usually supplied with a row of rough granite posts, three or four feet high, to support the wall of turf built up in front. The method however is now discouraged. Wells again, though in nearly all cases they are made by the agriculturists themselves, form an indispensable part of the irrigation system. Owing to the rocky nature of the sub-soil in Southern India, which frequently requires blasting as a necessary part of well-sinking, wells are more costly here than in other provinces; still they are found in all localities. They are worked either by the pulley and leather bucket, or by the lever styled a 'picottah;' the latter obtains mostly in the south.

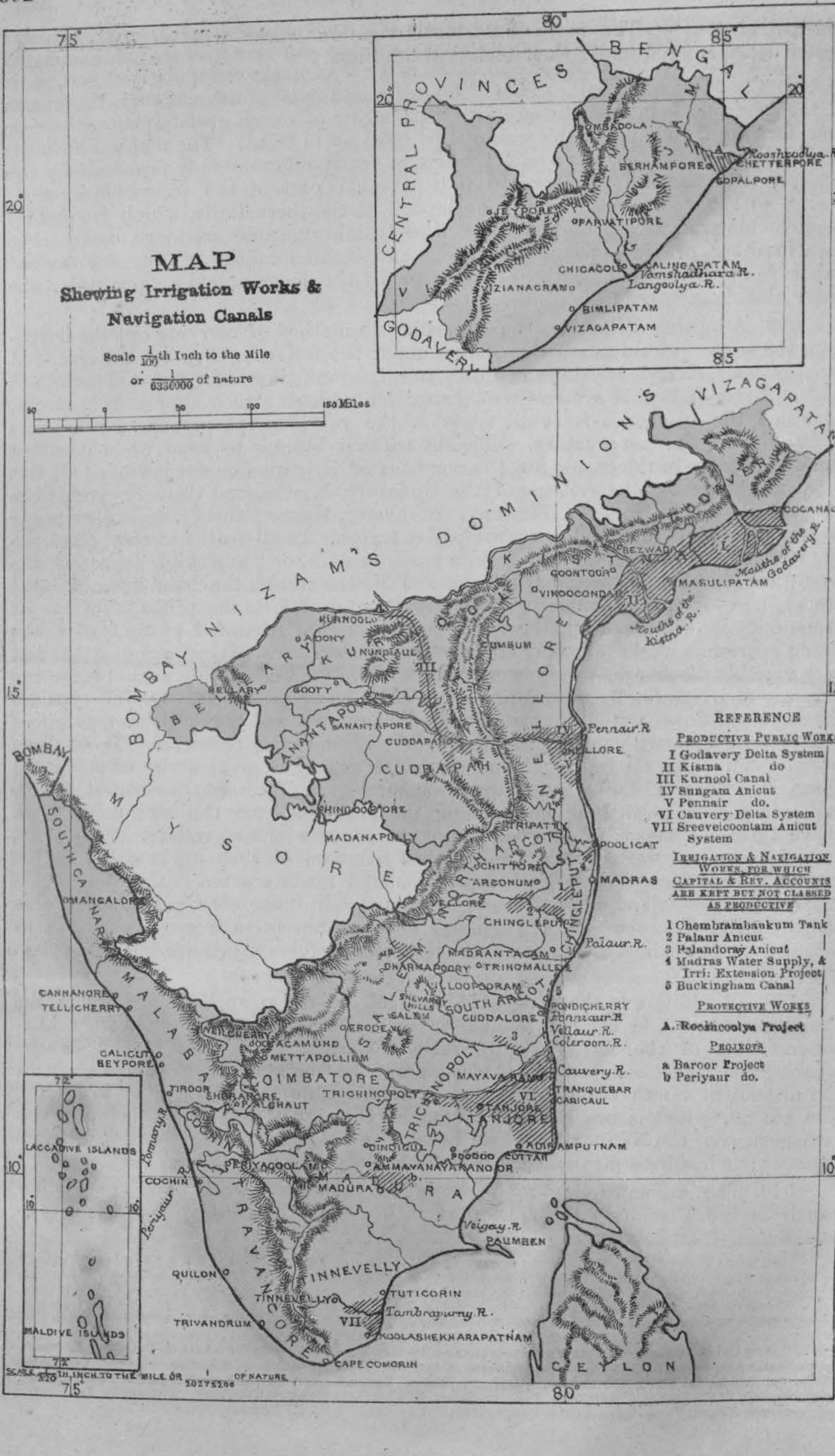
538. Adopting a classification according to method of carrying out the irrigation, the works would range themselves under the following five heads; river-fed canal systems, river-fed systems of tanks, rain-fed tanks in groups, isolated tanks and wells. River-fed canal systems would represent drawing their supply from rivers, of which the discharge is at all times of the year, except perhaps for a short period during the hot weather, sufficient without storage to keep up a constant supply of water in the canals for the purposes of irrigation or navigation. Of this type are the great delta systems of the Godavery, Kistna, and Cauvery rivers; the irrigation channels from the Bhawany, Amravatty, Upper Cauvery, and other lesser rivers, irrigating long and narrow riparian tracts. In all works of this class the main channels take off directly from a masonry dam, or "anicut" built across the river; and, in the case of the Godavery and Kistna works, the main lines of canal are adapted for navigation as well as irrigation, and form the principal means of communication in the districts which they traverse. River-fed systems of tanks would represent works drawing their supply from rivers having an uncertain and very variable discharge, which is stored and rendered constantly available for the purposes of irrigation by means of a chain of tanks or reservoirs. Of this type are the systems known as the Pennair, Palair, Pelandoray, and Shreeveicoontam anicut systems, together with numerous other works of the same character. In all these works main channels leading from an anicut supply a great series of tanks and channels. Rain-fed tanks in groups are a succession of reservoirs connected with each other and formed by impounding the drainage from the catchment basin above them, by means of long embankments thrown across valleys, or by short embankments thrown across gorges. Vast numbers of such works exist, and in many districts form very large groups. Isolated tanks are reservoirs obtaining a supply from a small river or stream, or from the drainage of the catchment area above them. These works, though not forming nearly so numerous a class as those of the preceding, are in some cases of considerable importance. Wells explain themselves.

539. In addition to the different classes of irrigation works, there are in the Presidency two works solely intended for internal navigation. These are the salt-water canals of the Eastern and Western Coasts. The first known as the Buckingham Canal connects the Godavery and Kistna systems of navigation with the district of South Arcot by means of a navigable canal 261 miles in length. The second, which is practically a system of connected backwaters, is under the management of the Native States and Local Fund Boards through whose districts it passes; it has been mentioned in the last article.

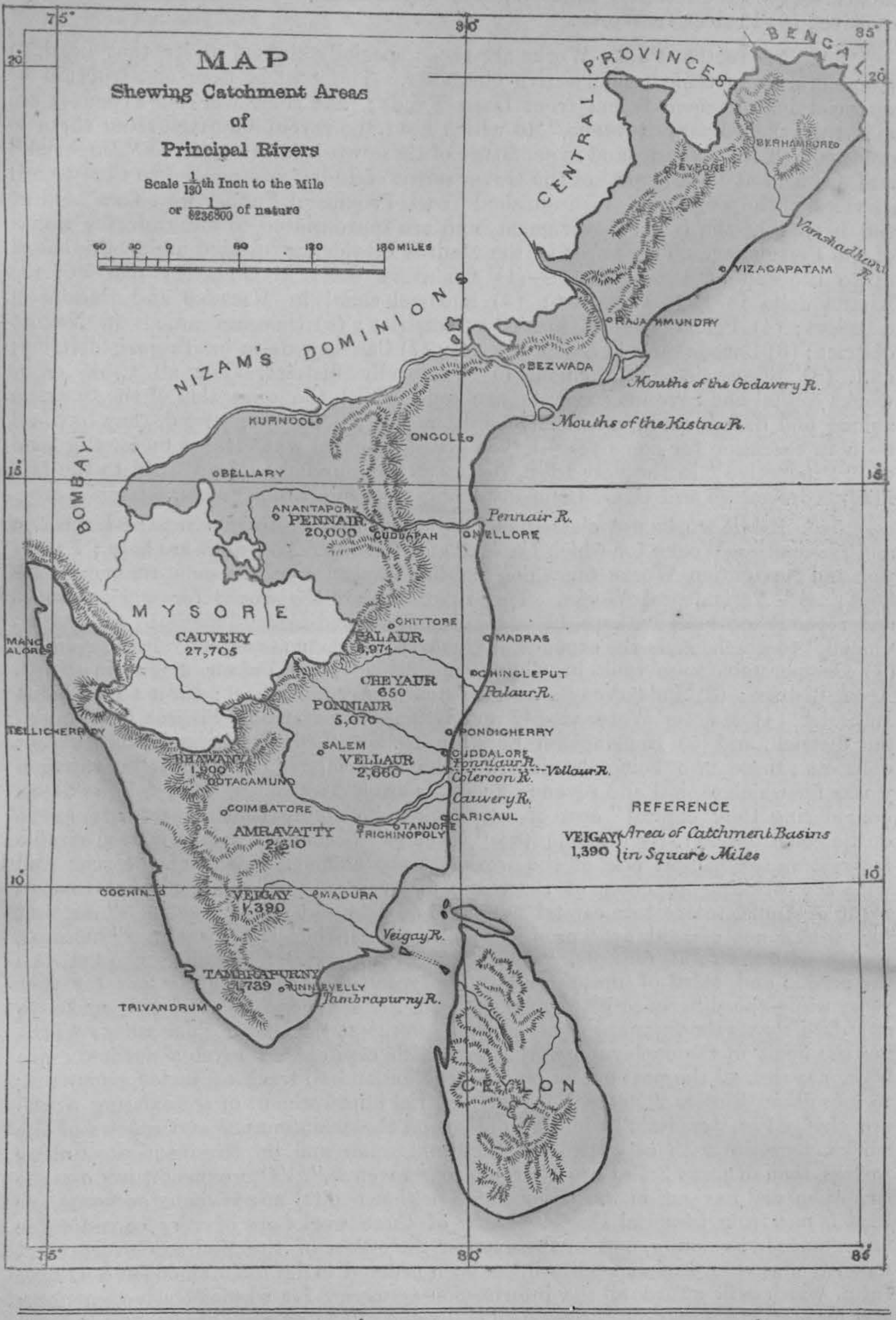
540. The accompanying map shows the irrigation works and navigation canals in the Presidency.[2] The next map shows the catchment areas of the

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[2] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN MAP SHOWING IRRIGATION WORKS AND NAVIGATION CANALS.* —Adirámpatnam, Ádóni, Ammayanáyakanúr, Anantapur, Arcot, Arkónam, Bellary, Berhampore, Beypore, Bezváda, Bhaváni, Bimlipatam, Calicut, Calingapatam, Cannanore, Cauvery, Chatrapur, Chicacole, Chingleput, Chittoor, Cocanada, Cochin, Coimbatore, Coleroon, Cuddalore, Cuddapah, Cumbum, Dharmapuri, Dindigul, Erode, Ganjam, Godávari, Guntúr, Gooty, Hindupur, Jeypore, Kulasekharapatnam, Kurnool, Lángulya, Madanapalle, Madras, Madura, Mangalore, Masulipatam, Madurántakam, Máyavaram, Mettupálaiyam, Nandyál, Nellore, Nílgiri, Ootacamund, Pálár, Pálghat, Párvatipur, Pámban, Pennér, Periyakulam, Periyár, Pondicherry, Ponáni, Ponniár, Pudukóta, Pulicat, Quilon, Rushikulya, Salem, Shevaroy Hills, Shoranur, Támbraparni, Tanjore, Tellicherry, Tinnevelly, Tirupati, Tiruvannámalai, Tirúr, Tranquebar, Trichinopoly, Trivandrum, Tuticorin, Vaigai, Vamsadhára, Vellár, Vellore, Vinukonda, Vizagapatam, Vizianagrum.


MAP
Shewing Irrigation Works & Navigation Canals
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
150 Miles
REFERENCE
PRODUCTIVE PUBLIC WORKS
I Godavery Delta System
II Kistna do
III Kurnool Canal
IV Sungam Anicut
V Pennair do.
VI Cauvery Delta System
VII Sreeveicoontam Anicut System
IRRIGATION & NAVIGATION WORKS, FOR WHICH CAPITAL & REV. ACCOUNTS ARE KEPT BUT NOT CLASSED AS PRODUCTIVE
1 Chembrambaukum Tank
2 Palaur Anicut
3 Palandoray Anicut
4 Madras Water Supply, & Irri: Extension Project
5 Buckingham Canal
PROTECTIVE WORKS
A. Rooshcoolya Project
PROJECTS
a Baroor Project
b Periyaur do.
CENTRAL PROVINCES
BENGAL
GODAVERY
NIZAM'S DOMINIONS
VIZAGAPATAM
BOMBAY
BELLARY
KURNOOL
CUDDAPAH
NELLORE
MYSORE
NORTH ARCOT
SOUTH ARCOT
CHINGLEPUT
SALEM
SOUTH CANARA
MALABAR
COIMBATORE
TRICHINOPOLY
TANJORE
MADURA
TINNEVELLY
TRAVANCORE
COCHIN
CEYLON
LACCADIVE ISLANDS
MALDIVE ISLANDS
MADRAS
PONDICHERRY
CAPE COMORIN
Pennair R.
Palaur R.
Cauvery R.
Tambrapurny R.
Mouths of the Godavery R.
Mouths of the Kistna R.
MASULIPATAM
COCANADA
BIMLIPATAM
VIZAGAPATAM
CALINGAPATAM
CHICACOLE
BERHAMPORE
GOPALPORE
JEYPORE
PARVATIPORE
Rooshcoolya R.
Vamshadhara R.
Langoolya R.
SCALE 1/320 TH. INCH TO THE MILE OR 1/20275200 OF NATURE

principal rivers.[3] The more important irrigation works will be described in greater detail ranged under their technical headings.



[3] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN MAP SHOWING CATCHMENT AREAS OF PRINCIPAL RIVERS.*— Amarávati, Anantapur, Bellary, Bezváda, Bhaváni, Cauvery, Cheyár, Chingleput, Chittoor, Cochin, Coimbatore, Coleroon, Cuddalore, Cuddapah, Godávari, Jeypore, Kistna, Kurnool, Madras, Madura, Mangalore, Nellore, Ongole, Ootacamund, Pálár, Pennér, Pondicherry, Ponniár, Salem, Támbraparni, Tanjore, Tellicherry, Tinnevelly, Trichinopoly, Trivandrum, Vaigai, Vamsadhára, Vellár, Vizagapatam.

541. TECHNICAL CLASSIFICATION OF IRRIGATION WORKS.—Works under the charge of the Irrigation Branch are divided technically into the three following main heads:—(1) Productive Public Works; (2) Public Works not classed as Productive; (3) Protective Works.

542. Productive Public Works are those specially classed under that head, in consideration of their remunerative character. The cost of their construction or material improvement is met from Loan Funds; and their working expenses are met from "Ordinary Revenue," to which head the revenue derived from them is credited. The revenue and expenditure of these works are treated as "Imperial," and are held at the disposal of the Government of India, and applied to the general services of the empire, as distinguished from Provincial Funds, which are held at the disposal of the Local Government, and are appropriated to the exclusive wants of the Presidency. The works in the Madras Presidency classed under this head up to the end of 1883-84 are:—(1) Godavery delta in Godavery district; (2) Kistna delta in Kistna district; (3) Kurnool canal in Kurnool and Cuddapah districts; (4) Pennair anicut in Nellore district; (5) Sungam anicut in Nellore district; (6) Baroor tank in Salem district; (7) Cauvery delta in Tanjore district; and (8) Shreeveicoontam anicut in Tinnevelly district. For all these eight works capital and revenue accounts are kept. With the exception of the Sungam anicut and Baroor tank, which have only recently been commenced, they have all been in operation for some years. The Kurnool canal was classed under the head of "Productive" in the year 1882, owing to the purchase money paid to the late Madras Irrigation and Canal Company being met from Loan Funds.

543. Public works not classed as Productive are sub-divided into:—Irrigation and Navigation Works for which Capital and Revenue Accounts are kept; Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept; and Agricultural Works. The following are the works for which capital and revenue accounts are kept, being again sub-divided into "Imperial" and "Provincial," to which heads the expenditure incurred on them is respectively charged:—(1) Chembrambaukum tank in Chingleput district; (2) Palaur anicut in North Arcot district; (3) Pelandoray anicut in South Arcot district; these three being Imperial: (4) Madras Water-supply and Irrigation Extension Project in Chingleput district; and (5) Buckingham Canal in Nellore, Chingleput, and South Arcot districts; these two being Provincial. The financial results of all the thirteen works for which capital and revenue accounts are kept are tested as follows:—by considering the "capital" cost of any work to be simply the sum actually spent on its construction: by debiting the "revenue" account yearly, with the simple interest on the capital cost of the works at the commencement of the year and with the working expenses of the year; under recent orders from the Government of India, interest on capital is not to be debited to the "revenue" account for works not classed as "productive:" by crediting the "revenue" account yearly with the total receipts, "direct" and "indirect." The difference between the second and third of these for any one year shows the profit or loss for that year, while the difference between them from the commencement of the works to any date shows the financial position of the works at that date. The rules regarding the debit of the outlay on works for which capital and revenue accounts are kept, are that all the past outlay on construction and all fresh estimates amounting to more than Rupees 2,500 each for the material improvement of the existing works are charged to "capital;" while all outlay on the maintenance and repairs of the works, together with estimates for their extension and improvement amounting to less than Rupees 2,500 are charged to "revenue." The expenditure on the irrigation and navigation works for which neither capital nor revenue accounts are kept is met from Imperial Funds. Many of these works are of very considerable importance individually, and for such, under the orders of the Madras Government, a continuous record of expenditure has been ordered to be maintained in a simple form, which will afford all the information necessary for administrative purposes and for the determination of their financial value. The number of important works for which such accounts are kept up to the end of 1883-84 is 59. A complete list of these works will be found later on. The remaining irrigation works under this head are of small importance individually, though important collectively, and are

dealt with in the groups or classes to which they belong, viz.:—Irrigation works supplied by rivers and streams; groups of rain-fed tanks; isolated tanks—rainfed; miscellaneous works including spring-channels, ponds, &c. Agricultural works are those which do not yield revenue, but which are necessary for the safety or prosperity of agriculture. They are divided into the following main heads:—River conservancy; River embankments; Drainages; Miscellaneous works. Expenditure on these works is also met from Imperial Funds.

544. Protective works are carried out from Famine Relief and Insurance Funds, formed of insurance taxation levied for famine purposes, and treated as Imperial. The only work classed under this head up to the end of 1883-84 is the Rooshcoolya project in the Ganjam district.

545. The following description of the works will give a detailed account of the works classed as Productive, a briefer account of the works for which capital and revenue accounts are kept, but which are not classed as Productive, a general description of the works for which a continuous record of expenditure is kept individually, the same for works for which a continuous record of expenditure is kept collectively, and the same for Public Works classed as "Protective."

546. PRODUCTIVE PUBLIC WORKS.—The Godavery delta system like those of the Kistna and Cauvery Deltas is one of a type special to the Madras Presidency. In all these delta systems, the river flows along a central ridge formed by the deposit of its own alluvium, while, on each side of this ridge the ground—formed by successive inundations of the river itself—slopes away from either bank with a gradual fall, and enables an anicut, built at the apex of the natural delta thus formed, to have a working command of water over the whole area comprised within the limits of the delta. The river Godavery, the largest and most important of the rivers traversing the Madras Presidency, rises in the Western Ghauts, and, at the site of the Godavery anicut, is 898 miles in length; has a drainage basin of 115,570 square miles; and a maximum flood discharge of 1·21 millions cubic feet per second. The anicut was commenced in 1844-45, and commands an alluvial tract of country of 2,020 square miles in area. It is a massive work of masonry, and is built across the sandy bed of the river at a spot 33 miles from the coast, where the river is nearly 4 miles broad, and is divided by three islands into four channels. Of these, the two eastern channels re-unite just below the anicut, and similarly the two western channels. The land included between these two principal branches forms what is known as the central delta, while that on the eastern branch is called the eastern delta, and that on the western branch the western delta. The irrigation in each of these three natural divisions is distinct, and is supplied by a head sluice and main canal from the anicut. This great work consists of a masonry dam built in separate portions between the islands, the total length of the masonry work being 3,982 yards. The general section of the dam consists of, first, a front curtain wall running along the whole length, resting on wells; second, a horizontal flooring or waste-board 19 feet in breadth; third, a masonry counter-arched fall 28 feet in breadth; fourth, a rough-stone apron in rear formed of massive stones, and extending about 184 feet down stream, so as to protect the rear foundations against the erosive action of the water passing over the dam. The crest of the anicut is 38 feet above mean sea-level; 13 feet above level of top of foundations; and the greatest depth of water which has passed over it is 15·25 feet. The delta is fully supplied when 3 feet of water is passing over the anicut crest. On both flanks of the dam, and at the head of the central delta, is a lock for the passage of craft; an under-sluice for purposes of scour and clearance; and a head sluice from which takes off the main canal of each delta, and supplies a network of branch and distributary channels, of which the principal ones are adapted for navigation as well as irrigation. The dimensions of the head sluices are as follows:—eastern, 13 vents 6′ × 8′; central, 15 vents 6′ × 8½′; western, 15 vents 7½′ and varying in width from 5½′ to 6′. The sills of each sluice are 6 feet below the level of the anicut crest. The capacity of the three main canals in discharge in cubic feet per second is thus:—eastern 2,826 feet, central 1,745 feet, western 3,945 feet, total 8,516 feet. The system is not yet finished, but is expected to be completed by the year 1889-1890, and the completion estimates, amounting to a total of Rupees 1,30,32,653 for direct and indirect charges, have been sanctioned by the Secretary

of State as follows:—direct charges, Rupees 1,10,88,695; indirect charges, Rupees 19,43,958. The length of navigable canals is 458 miles, which will be increased to 502½ miles on completion of the works. The extent of irrigation in 1882-83 was 528,129 acres, which will be extended to 612,000 acres on completion of the works. The net annual income of the system for the year 1882-83 was Rupees 12,11,028, and the surplus revenue, after payment of interest charges, was Rupees 8,45,830. A reference to the statement in foot-note [1] exhibiting the financial result of Productive Public Works up to the end of 1882-83, will show that the works have paid 142·06 per cent. on the total capital outlay, i.e., the system has paid in surplus revenue nearly one-and-a-half times the money expended upon it. On completion of the works in 1889-90, it is estimated that the system will yield a net annual return of 12·7 per cent. on the total capital outlay of Rupees 1,30,32,653. These highly satisfactory financial results do not represent by any means the total profits which have accrued to the State from this most successful work. Directly traceable to the work are the enormous increase in the import and export trade, the rise in land revenue, in population, and in the general prosperity of the district; while as an insurance against famine, the work is invaluable. One instance of this last fact may be cited. During the famine of 1876-77, when every unirrigated district was importing enormous quantities of grain to feed its population, the quantity of grain exported from the Godavery district was valued at £1,740,000.

547. The Kistna delta is the next river delta system. The Kistna, the second in point of size of all the rivers of the Presidency, rises in the Western Ghauts, close to the source of the Godavery. The anicut is built at the natural head of the delta, where the river flows between rocky hills, and is only 1,300 yards wide, or much narrower than its normal width. At the head of the delta, the river is 800 miles long; has a drainage area of 97,050 square miles; and a maximum flood discharge of 736,000 cubic feet per second. The anicut which was commenced in the year 1852 is situated 45 miles from the sea in a direct line, 60 miles by river, and commands a delta, which is separated into two natural divisions, respectively called the eastern and western divisions, by the river itself, of 2,110 square miles in area. Like the Godavery dam the Kistna anicut is constructed on a sandy river bed. It consists mainly of a body wall of stone in mortar founded upon a double row of wells. The body wall is 1,238 yards in length from wing to wing; 6 feet wide at top; and has its crest or sill-board 20 feet above the deep bed of the stream, and 15½ feet above the summer level of the river; and is backed on the down stream side by a massive rough stone apron, containing about 400,000 cubic yards of stone, and sloping away down stream for a distance of 257 feet. In this apron, at a distance of 100 feet from the body wall, is a retaining wall having its crest 6 feet lower than that of the body wall. The crest of the anicut is 43 feet above mean sea-level; the greatest flood which has passed over it is 20·65 feet; and the depth of water upon it, which is considered to furnish a full supply to the delta, is 2½ feet. In order therefore to keep the water level considerably above the anicut, towards the end of the cultivating season when the river is low, a rough dry stone wall about 4 feet high is erected on the anicut crest in October or November of each year, and as the river falls in the dry season this stone is utilised in the annual repairs required by the apron of the anicut, so that the crest is left clear again before the floods of the south-west monsoon in June. On each flank of the anicut are under-sluices, consisting of 15 vents of 6 feet span, with their floor 8½ feet below the crest of the anicut; while, above the anicut, on either bank, are the locks for the passage of craft and the head sluices of the deltaic channels. The eastern head sluice has 15 vents of 6′ × 9′ span, with its floor 5½ feet below the anicut crest; and the western head sluice 15 vents of 6′ × 8′ span, with its floor 6 feet below the crest of the anicut. Both of the head locks are 16 feet wide, and 160 feet long from gate to gate. The system is not expected to be completed till the end of the year 1901-02. The total estimate for direct charges, amounting to Rupees 1,38,99,784, has been sanctioned by the Secretary of State. The estimate for indirect charges, amounting to Rupees 10,01,160, is now awaiting sanction. The navigable canals of the system are connected on the one side with those of the Godavery delta, and on the other side with the Buckingham Canal. In 1882-83 their total length was 278 miles, which will be ultimately increased to

349 miles. The total area effectually irrigated, and net revenue derived, in the year 1882-83, was 261,158 acres and Rupees 5,85,262, respectively, as against 287,027 acres and Rupees 7,13,129 in the year preceding, the decrease being due to the very heavy floods of 1882, which caused much damage and entailed large remissions in the delta. On completion of the works the area of irrigation will be increased to 475,000 acres. The surplus revenue of the year, after paying all charges including interest, was Rupees 3,51,945, or 5·57 per cent. on the total capital outlay of Rupees 63,30,628. A large portion of the further expenditure to be incurred on the system consists of works, such as drainage, &c., for the purpose of securing existing irrigation from risk. Expenditure of this description, while adding largely to the capital outlay, brings no proportionate increase in revenue, and it is accordingly estimated that the net returns of the system, which have during 1882-83 been 9·92 per cent. will, on completion of the works in 1901-02, be reduced to 8·38 per cent. on the total capital outlay of Rupees 1,49,00,944. As in the case of the Godavery system, this work, while paying a large direct profit to the State, is a safe insurance against famine, and has immensely increased the general prosperity of the district, which is now one of the richest and most thriving in the Presidency, but previous to the construction of the Kistna anicut was one of the poorest, and suffered most severely in the famine of 1833-34.

548. The Kurnool Canal takes off from an anicut, 17 miles above the town of Kurnool, on the river Toongabudra, which, rising in the hilly country of West Mysore, skirts the dry district of Bellary, and joins the Kistna river in that of Kurnool. In describing in the first foot-note the financial policy of Government in respect to large works of irrigation, reference was made to this canal, which was purchased by Government in 1882 from the Madras Irrigation and Canal Company, and from that date has been designated the "Kurnool Canal."[4] The anicut supplying the canal is built across the river Toongabudra at Soonkesala. It is 1,500 yards in length, is founded on rock, has a clear overfall, and is furnished with a set of under-sluices. The highest flood that has yet passed over it is 6·80 feet. The water passes through a head sluice into the canal, which, in the upper portion of its course, has a general cross section of 90 feet bottom width, side slopes 2 to 1, depth 8 feet, and capacity of 3,000 cubic feet per second. At the 75th mile the canal passes through the watershed between the Toongabudra and Pennair rivers, crosses the Pennair at the 182nd mile, and terminates at the town of Cuddapah (on the Madras Railway), 190 miles from Soonkesala. An anicut at the crossing of the Pennair affords the supply necessary for the continuation of the canal to Cuddapah. This anicut is 2,333 feet in length, of which 509 feet are founded on rock, and 1,724 feet on wells sunk in the sand. In addition to this work there are on the canal two other anicuts, two important aqueducts; surplus and cross drainage works; 48 over-bridges; and 42 locks, of which 7 are double and 35 single. The canal was completed in 1871, but navigation was not started until 1880, owing to the embarrassed state of the company's affairs. A telegraph line runs along the canal, and at the end of 1883-84 was in progress of reconstruction by the Telegraph department. When completed, this line will be inspected and maintained by the Telegraph department; and will be worked by the Public Works staff of the canal

[4] SKETCH HISTORY OF THE MADRAS IRRIGATION AND CANAL COMPANY.—The work of the Kurnool Canal owes its inception to the policy of introducing into India British capital and enterprise in the construction of irrigation works. So much was anticipated from this policy that, when in 1858 overtures were made to Government to carry out a project, initiated by Sir Arthur Cotton, and then known as the "Toongabudra Project," by the agency of a private company, the proposal was readily met by Government. The company, known as the Madras Irrigation and Canal Company, was therefore incorporated in 1858, and in 1863 the regular contract deed between the Secretary of State and the company was drawn up, by which a Government guarantee of 5 per cent. was given on a capital of one million sterling for the execution of the work proposed. In 1866 the company was already in financial difficulties, and had spent £937,242 out of a capital raised of £964,521, while the works were still in a very unfinished stage. A second indenture was therefore signed in that year, modifying the original contract in so far as to allow of the company obtaining from Government a sum of £600,000 by means of debentures. By 1872 the original capital of one million sterling, together with the Secretary of State's loan of £600,000, had been wholly exhausted, while the canal still remained unfinished. Mortgage debentures were then issued, but the credit of the company was not sufficiently good to make funds readily forthcoming; and, as the improvement of the financial state of the work was impossible as long as it remained under the company, Government decided to forestall the date of the termination of the contract, and to take the work under their direct control. Terms were accordingly offered to the stock and mortgage debenture holders, which were at once accepted by the former but not by the latter. The matter was therefore referred to the Court of Chancery, and finally in 1882 the Court gave a judgment, authorizing the transfer of the canal to the Secretary of State. The works of the company were accordingly purchased and were officially transferred in July of that year; and the canal was formed into an ordinary public works division; was placed under an Executive Engineer; and was called the "Kurnool Canal Division."

as a licensed system, so that it will be available for carrying messages for the general public, in addition to those on the service of the canal. The works have suffered from numerous accidents, the latest serious accidents being the breaching of the Soonkesala anicut in the year 1882, a few days after the transfer of the canal to Government; and the damages done to the canal by the breaching of a tank in the following year. The extension of irrigation under the canal has been of a disappointing nature. For the five years, from 1871 to 1876, the irrigated area and revenue averaged 14,700 acres and Rupees 50,650, the charges against revenue being Rupees 1,80,000. The impetus given to irrigation in the years 1876-77 and 1877-78 by the failure of the monsoon rains raised the area shown as irrigated materially, as the following figures will show:—1876-77, 90,285 acres, Rupees 2,47,351; 1877-78, 50,918 acres, Rupees 1,49,130. This increase was due to watering dry crops, and soon declined, as the average for the years 1878-79 to 1881-82 was only 20,018 acres and Rupees 73,363. In 1882-83 the area irrigated was 14,903 acres, the revenue from irrigation Rupees 59,255, and the traffic receipts from navigation, Rupees 10,683. The decrease in the irrigated area during 1882-83 was owing to the breach in the anicut, which occurred in July 1882. The financial result for the year was a loss of Rupees 63,708, in addition to the charge for interest on capital. It is as yet early to predict what the future of the work may be now that it has been taken under the management of Government, but the large amount of capital outlay sunk upon it, in proportion to the capacity of the canal, precludes it from ever being remunerative. It is proposed to complete the distributaries required for the extension of irrigation by the end of 1885-86, and it is anticipated that, at the end of 1886-87, the revenue will be sufficient to meet the cost of maintenance. The causes of the financial failure of the work are numerous. Prominent among them are the following:—excessive cost of works and faulty execution and design; nature of soil commanded and circumstances of people; unsatisfactory relations between the late company and the revenue officers, and antagonism between the company and the ryots; delay in commencing navigation. The first and second causes of failure are permanent; the third and fourth no longer exist. The very great cost of the works in relation to the capacity of the canal has already been noticed, and both the anicut and the canal have suffered from frequent accidents. The canal flows through a country where irrigation is but little practised, and the people are unused to it; where also the food-grains grow well in ordinary years without being irrigated. The best prospects of success for the work were to offer water on attractive terms, and to furnish by means of navigation cheap means of transport and access to a profitable mart. The system of applications for water introduced, however, by the late company was not of a nature to attract the ryot, and navigation has only been recently begun.

549. The Pennair anicut is the next productive public work. The river Pennair rises in Mysore, has a drainage area of 20,000 square miles, and a total length of 330 miles. Its principal supply is derived from the north-east monsoon, during which it is subject to very heavy floods of short duration, but the upper portion of its basin obtains a fair, though uncertain, supply from the south-west monsoon. The bed of the river has a considerable fall, which in the lower portions of its course is as much as 3 feet per mile. Owing to the character of the river, advantage has been taken from very ancient times, by means of flood cuts, to utilise the supply brought down by freshes, in filling a very large series of tanks on the southern bank of the river in the neighbourhood of the town of Nellore, and thus the irrigation of this area is carried over the periods when the river itself is dry. The water-supply, however, obtained by this means was very variable, and, in order to improve it and render the irrigation certain, the anicut was commenced in 1853, at a site close to the town of Nellore, and 19 miles from the sea. This work was completed in 1855, but during the extraordinary heavy floods of 1874 was turned at its northern or left flank. The anicut was thereupon repaired and was extended from its original length of 1,581 feet, which is about one-third of the normal width of the river, to a length of 2,039 feet. As existing, the anicut consists of a body wall of this length, founded on a double row of wells; and is backed by a series of rough stone aprons, divided by retaining walls, and having a total fall of 9 feet and total width of 178 feet. The crest of the anicut is 9 feet

above the river bed, and 37·47 feet above mean sea-level, while the highest flood which has passed over it is 19·30 feet. It has two sets of under-sluices, and a head sluice and auxiliary head sluice at its southern flank—there being no irrigation under the anicut on the northern bank of the river. The head sluice has 9 vents of 6 feet span and the auxiliary head sluice 6 vents of × 10′ 3½′, while the level of the sills of both head sluices are 8 feet below the anicut crest. From the main canal leading from the head sluices, two old native channels, which have been extended and improved since the construction of the anicut, convey the river-supply to a great series of tanks, and form the main feeders of the system. From one of these channels, a third principal channel, running midway between the other two, branches off, and is the only entirely new channel of any considerable size constructed by the British Government. The channels of the system generally flow along the watershed, and there is consequently but little cross drainage. The irrigation on the southern bank of the river extends over an area of 150 square miles. The irrigation of the northern bank will be effected by the Sungam anicut, which at the end of 1883-84 was being built across the river, 20 miles above the Pennair anicut. In 1882-83 the area irrigated under the Pennair anicut was 63,653 acres, and the irrigation revenue derived therefrom Rupees 2,34,957, but of this sum the portion due to the old irrigation, which existed prior to the construction of the anicut, was Rupees 1,20,350. The net revenue due to the work was Rupees 79,989 or 4·8 per cent. on the total capital outlay of Rupees 16,65,159. The complete estimate for this system, amounting to Rupees 18,94,784, including all direct and indirect charges, has just been sanctioned by the Secretary of State.

550. The next work is the Cauvery delta. The river Cauvery rises in the province of Coorg, flows through the Mysore plateau, and through the Madras districts of Coimbatore, Salem, and Trichinopoly, where, together with its tributaries, it feeds a succession of irrigating channels, and bifurcates at the head of its delta, 9 miles west of the town of Trichinopoly, the southern branch retaining the name of the parent stream, while the northern branch is known as the Coleroon. About 17 miles below the point of their bifurcation, the two branches very nearly re-unite, forming between them the island of Shreerungam. Below this point the Coleroon takes a north-easterly course, skirts the district of Tanjore on its northern border, and reaches the sea with its volume comparatively little diminished. Though there is considerable irrigation from this branch, it is not connected with the irrigation of what is classed as the Cauvery delta proper, to which (as will afterwards be noticed) it affords a natural drainage channel for the escape of surplus water. The Cauvery branch, on the other hand, runs through the delta, divides into numerous branches, and covers the delta with a vast net-work of channels, which have from very ancient times been utilized for the purposes of irrigation. Of the numerous offshoots some are lost in the wide expanse of rice-fields, others find their way to the sea, while the branch which retains the name of Cauvery throughout diminishes to an insignificant stream before entering the sea. The Cauvery river, together with its tributaries, is fed by the rains of both monsoons, and has an abundant and constant flow for nine months in the year. At the head of the delta it is 4,400 feet wide, has a drainage area of 27,705 square miles, and a maximum flood discharge of 284,000 cubic feet per second. The total average annual discharge is about 490,000 millions of cubic feet, equivalent to 17·68 inches of discharge from the whole drainage basin. The irrigation of the Tanjore delta dates to a very remote period. In order to understand the system as it now exists, and the requirements which have still to be attended to, it is necessary to take note of the development of the system up to the present time. This can be seen in the footnote.[5] The total area of the delta is 1,402,880 acres (2,192 square miles), of

[5] SKETCH HISTORY OF THE CAUVERY WORKS.—Under the old native régime as to these works channels, sometimes supplied by head sluices, were first cut from the main river. These by means of an infinite number of smaller channels of distribution afforded a supply of water for the purposes of irrigation. But besides the main river being thus utilized, the numerous deltaic branches from it (in all of which the water surface was, in the normal state of the river, generally higher than the level of the surrounding country) were also similarly laid under contribution, and hand in hand with this process of utilizing the waters in moderate floods necessarily grew up a vast system of embankments, whereby the waters during extreme floods were prevented from spreading over the country and damaging the crops. The principal masonry work undertaken during the native period is that known as the Grand Anicut, built in the eleventh century, and situated just below the island of Shreerungam, where (as above mentioned) the Cauvery and Coleroon come into close contact with each other. At this point the bed of the Coleroon is nine or ten feet lower than that of the Cauvery, and

which 900,000 acres are irrigated. The irrigation in the delta is fully supplied when the river stands 5·7 feet on the Cauvery regulating dam, which represents a discharge of 12,330 cubic feet per second. The Upper Coleroon anicut is built across the head of the Coleroon, the body wall is 2,789 feet in length, and is founded on a double row of wells. The anicut is provided with under-sluices, and a bridge, six feet between parapet walls, is built across it. The Cauvery regulating dam is practically a continuation of the anicut, is built across the Cauvery branch at its head, and is 1,950 feet in length from wing to wing. The highest flood ever known in the river rose to 13·20 above the floor of this dam. Below these works, lower down the delta, are numerous surplus works and the regulating works of the principal branch channels from the Cauvery. The sketch given below of the development of the delta irrigation will have made it plain that a peculiarity of the system is that the natural drainage channels have been taken up for the purpose of irrigation, and that the numerous deltaic channels of the Cauvery take the place of the artificial canals in the Godavery and Kistna deltas, and merely require sluices built across their heads to be made available as irrigating channels. The total length of the Cauvery branch from the head of the delta to the sea is 95 miles. At its head, the branch is 2,000 feet wide, and continues that width for $14\frac{1}{2}$ miles, where the Vennaur river, its first principal branch, takes off. The Vennaur has a regulating dam at its head, and is itself divided into five main branches. Returning to the main river, $2\frac{3}{4}$ miles below the Vennaur, is the Grand Anicut. This very ancient work is 1,080 feet long, and consists of rough blocks of granite built in a serpentine form, having over it a bridge of 32 arches of 32 feet span following the wavy line of the anicut. The crest of the work is 7 feet above the bed of the Cauvery branch. The Grand Anicut is provided with 10 sluices, 3 feet broad, with their sills 10 feet below the crest of the work, which pass the surplus water of the Cauvery into the Coleroon. Besides the Grand Anicut, there are other surplus works passing into the Coleroon branch all the water which cannot be disposed of by the Cauvery branch and its irrigating channels. Further down the Cauvery branch, $9\frac{1}{2}$ miles below the Grand Anicut and $26\frac{3}{4}$ miles from the head of the delta, the Coodamoorty river—the second principal branch of the Cauvery—takes off; while 20 miles lower down is the Arasilaur, or third principal branch; and 14 miles lower down, the Veerasholan, or last principal branch. All these three main branches have also regulating dams at their head, and supply a vast number of branch and distributary channels. This concludes the description of the delta irrigation under the Cauvery branch. As before stated, there is no irrigation from the Coleroon within the delta proper, but that branch plays an important part in the delta system, by providing a great natural drainage channel for the surplus waters of the Cauvery branch. Before quitting the subject of the delta irrigation, it is desirable to notice two requirements which yet remain to be attended to. First among these is the complete system of head works necessary in order to have the

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the Grand Anicut was therefore built across a natural outlet of the Cauvery to prevent its water being wholly drained off into Coleroon. About the year 1800 the Tanjore district was ceded to the British, and in 1804 it was found that the Coleroon branch, from its more rapid fall and more direct course to the sea, was draining off, at its head, the main portion of the water-supply of the river above the point of its bifurcation; while the Cauvery branch was silting up at its head. It thus became very evident that, if effective measures were not taken to rectify, by artificial means, the natural differences between the two branches, the result would be the annihilation of the Cauvery branch as an irrigating stream, and as a consequence the collapse of the delta irrigation. From 1804—1829 an incessant struggle was maintained against the increasing tendency of the Cauvery branch to silt up at its head, and efforts were made to force a larger supply of water into the branch. These efforts were ineffectual. The bed of the Cauvery branch continued to rise, the supply to diminish, and the area under cultivation to fall off. In 1830, under-sluices were built in the Grand Anicut, together with other similar works and waste weirs at eligible sites in the left bank of the Cauvery, in order to endeavour to clear from its bed the accumulations of sand. These works were beneficial, but did not check in any way the evil resulting from the unequal distribution of the volume between the two main streams. In 1836, under the advice of Sir Arthur Cotton, the Upper Coleroon anicut was built across the head of the Coleroon branch, and was completely successful in its object of throwing into the Cauvery branch a fair distribution of the water-supply, by the simple expedient of placing the crest of the anicut at such a height as to ensure, in the average state of the river, a proper distribution of the entire volume of the main stream between the two branches during the irrigating season. Simultaneously with the Upper Coleroon anicut, and supplementary to it, was constructed the Lower Coleroon anicut, 70 miles lower down the river, in order to provide for the irrigation of the irrigated lands of the South Arcot district, and for those of the north-east portion of the Tanjore district, whose supply would of course be much reduced by the construction of the Upper Anicut. As the irrigation under the Lower Coleroon anicut, and the expenditure incurred thereon, are not included in that of the Cauvery delta system, and the work is separately classed as one for which a continuous record of expenditure is kept, no furthur mention will here be made to it. The next important work undertaken was in 1845, when a regulating dam was built across the head of the Cauvery branch to counteract the effects of the Upper Coleroon anicut, which, it was found, was throwing into the Cauvery branch a body of water far larger than was safe or was required. Finally, in 1848, the construction of a regulating dam to the first principal offshoot from the Cauvery branch was begun; and subsequently regulating dams were provided for the other principal branches, thus completing the general system of regulation and control of the water required for the delta irrigation.

supply of the Vennaur, and other branches from the Cauvery, under complete control, and thus to prevent the repeated damages which, for many years, the delta has been liable to during heavy floods in the river. The floods generally occur in the north-east monsoon, and, together with the very heavy local rainfall which often occurs at that time of the year in the Tanjore district, fills the Cauvery branch and its offshoots to overflowing, and consequently bursts the delta embankments. The subject is now being systematically taken up. The construction of head sluices to the Cauvery and Vennaur rivers, at a site immediately below the Grand Anicut, is now in progress; and various other works—including alterations to the Grand Anicut, which will enable that work to discharge 85,000 cubic feet of water per second—will shortly be undertaken. The second requirement is a complete survey of the delta. No proper survey of the delta has yet been made, and comparatively little is therefore known of the vast system of minor channels within its limits. Regulators are required at the heads of many of the smaller irrigation channels, but the construction of these works is necessarily delayed until the completion of the survey, which will show accurately how the irrigation is distributed over the several channels. The survey is now in progress. The total amount of the estimates sanctioned for this system, up to the end of 1883-84, is Rupees 18,54,847. The area effectually irrigated, and the revenue derived therefrom, for 1882-83 was thus :—First crop Acres 895,719, Rupees 26,55,600; second crop Acres 108,298, Rupees 2,53,780; total Rupees 29,09,380. Of the gross irrigation revenue of Rupees 29,09,380, the portion due to the old irrigation, which existed prior to the improvements and additions made by the British Government, was Rupees 23,43,214. The surplus revenue due to the new works after meeting all charges was, in 1882-83, Rupees 5,80,975, or 50·51 per cent. on the total capital outlay of Rupees 11,50,238; while the total surplus revenue, up to end of 1882-83, was Rupees 1,28,68,167, being 1118·8 per cent. on the capital outlay, or more than eleven times the total outlay on capital account. It thus appears that the work as a financial investment has been successful.

551. The Shreeveicoontam anicut is the last of eight anicuts on the river Tambrapurny, in the Tinnevelly district, and is situated 16 miles from the sea. The river rises in the Western Ghauts, and, though comparatively a small stream, derives its importance from the fact that it receives a supply from both monsoons. At the site of the Shreeveicoontam anicut the drainage area of the river is 1,739 square miles, and the maximum flood discharge 118,673 cubic feet per second. The average annual discharge of the river is 60,304 millions cubic feet, equivalent to 14·9 inches of discharge from the whole catchment basin, but in the year 1877, when the freshes of the north-east monsoon were extraordinarily heavy, the total annual discharge of the river reached the high figure of 121,295 millions cubic feet, equivalent to 30 inches from the whole catchment basin. The seven anicuts in the Tambrapurny above the Shreeveicoontam anicut are of old native construction, and it was principally owing to the great success of these works that the Shreeveicoontam anicut was projected. This work was begun in 1867. The system is of a simple character, and may be briefly described. From either flank of the anicut, which is 1,380 feet in length between the wings, two main channels, 21 miles in length and supplied with head sluices, are taken off, and supply a large series of tanks which existed before the Shreeveicoontam anicut was built, and before its construction were very inadequately supplied. Besides filling these tanks, the main channels irrigate directly a considerable area of land. The height of the anicut crest above mean sea-level is 37·40 feet, while the sills of the head sluices of the main channels are 6 feet below the crest of the anicut. The highest flood which has yet passed over the anicut rose to $11\frac{3}{4}$ feet over its crest. The works from their very commencement have had numerous accidents, and to this cause must mainly be attributable the slow extension of irrigation under them, and their want of financial success up to the present date. The damages to the works have been due to the breaching of the river embankments, during the very sudden and heavy floods to which the Tambrapurny is liable; and to the breaching of tanks, caused by heavy upland floods. They have now been provided against by completing the river embankments, throwing back the north flood-bank of the river below the anicut, and by affording adequate means of surplus for the cross drainage from

the tanks lying above those of the Shreeveicoontam anicut system. The system will not be finally completed till the year 1885-86. The completion estimates amounting to Rupees 14,76,806, of which Rupees 13,61,520 represent the direct and Rupees 1,15,286 the indirect charges, have been sanctioned by the Secretary of State. During the year 1882-83 the area effectively irrigated and the revenue derived therefrom was thus :—First crop, Acres 19,546, Rupees 4,13,450 ; second crop, Acres 17,647, Rupees 58,291 ; total Rupees 1,71,741. The ultimate area of irrigation—which it is estimated will be reached in 1886-87, the year after the completion of the works—is 25,000 acres, all of which will be double cropped. The net revenue from the system in 1882-83 was Rupees 73,018, while the actual return from the work, after paying all charges including interest charges, was Rupees 23,768, or 1·81 per cent. on the total capital outlay of Rupees 13,12,135. After completion of the works in the year 1886-87, it is anticipated that the net yearly revenue will be increased to Rupees 1,10,902, or 7½ per cent. on the total capital outlay of Rupees 14,76,806.

552. As has already been stated in speaking of the Pennair anicut, the Sungam anicut will extend irrigation to the northern bank of that river. From the anicut, a main channel, leading from a head sluice on the north bank of the river, will supply two large existing reservoirs, known as the Canigherry and Doovoor tanks, from the former of which the irrigation channels will be taken off, and thus advantage will be taken of the intermittent character of the river supply. The area to be commanded by the anicut will be 220 square miles. This tract of country already contains many tanks, and is partially irrigated by cuts from the river. The construction of the anicut will render certain the existing irrigation, and will largely increase it as follows :—present irrigation, 44,053 acres ; estimated increase, 49,947 acres ; total 94,000 acres. The site of the anicut is about 38 miles from the sea, and 20 miles above the Pennair anicut at Nellore. When finished, it will be 4,290 feet in length, or nearly three times the length of the Pennair anicut ; and will have its crest 7 feet above the deep bed of the river, or 105 feet above mean sea-level. The head sluice (which is now finished) has 21 vents of 6 feet span, and is designed to carry 4,800 cubic feet of water per second (when the water in the river is flush with the anicut crest), which will be distributed in the following proportions to the reservoirs which it supplies :—Canigherry tank, cubic feet per second 4,576·5 ; Doovoor tank, cubic feet per second 223·5. The present capacity of the Canigherry tank is to be greatly enlarged, and the total capacity of the two reservoirs will ultimately be—Canigherry tank, millions of cubic feet, 6,419 ; Doovoor tank, millions of cubic feet, 1,043 ; total, millions of cubic feet, 7,462. When finished, the Canigherry tank will be the largest reservoir in the Presidency. It is estimated that the works will be completed about the year 1889-90. At the end of 1883-84 very considerable progress had been made in their construction, as the whole of the wells required for the anicut had been sunk, the south wing of the anicut and the head sluice had been finished, and a large amount of work on the anicut and other works had reached an advanced stage of progress. The estimate for the work amounts to Rupees 35,69,049, of which Rupees 28,96,437 is for direct charges and Rupees 6,72,612 for indirect charges, and was sanctioned by the Secretary of State in February 1881. At the end of 1883-84 the total outlay against direct charges was Rupees 13,48,624. It is anticipated that on completion of the works, about 1889-90, the annual revenue will amount to Rupees 2,38,000. The estimate of annual working expenses is Rupees 50,255, and the net revenue will therefore be Rupees 1,87,745, or 5·26 per cent. on the total capital outlay of Rupees 35,69,049.

553. The Baroor tank is situated in the Salem district, and was commenced as a famine-relief work in August 1877, at a time when the district was suffering severely from the effects of famine. The normal value of the work then done was estimated at Rupees 67,185, in addition to which a sum of Rupees 13,172 was paid for land compensation, making a total expenditure of Rupees 80,357 on the work. In 1883 the project was sanctioned as a Productive Public Work by the Secretary of State, and was put in hand towards the close of the year. The scheme is one for the improvement of several existing tanks (of which the Baroor tank is by far the largest) by building an anicut across the Pennair river,

This river rises in the Mysore plateau and drains an area of 2,082 square miles, in which are situated numerous tanks. The extent of free catchment basin may be put down at 1,080 square miles. The supply afforded by the river is ample, and from the anicut, a supply channel, 7½ miles in length, provided with a head sluice, leads to the Baroor tank. The project also provides for the enlargement of this tank, and for two distributary channels from it, which will supply a number of smaller tanks. The work will bring under irrigation an area of 5,430 acres, in addition to 1,457 acres already supplied by the tanks. The total storage capacity of the tanks, when completed, will be 16½ millions cubic yards, of which the Baroor tank will alone store 11½ millions cubic yards. The total estimate for the project is Rupees 3,33,793, of which Rupees 3,20,000 is for direct charges, and Rupees 13,793 for indirect charges. In addition to the expenditure of Rupees 80,357 incurred on the work prior to its sanction as a Productive Public Work, a further expenditure of Rupees 7,298 was incurred in the year 1883-84. The work done to the end of 1883-84 consisted mainly of earthwork to the supply channel, construction of waste weir on the Baroor tank, collection of materials, and preparation of foundations for the head works. The project will be finally completed in the year 1886-87, and the net revenue which the work is estimated to yield is Rupees 21,448, or 6·4 per cent. on the total capital outlay of Rupees 3,33,793.

554. Works for which capital and revenue accounts are kept, but which are not classed as Productive.—The Chembrambaukum tank is a large reservoir about 14 miles from Madras, and is formed by an embankment 7,100 yards in length, connecting high ground on one side with a rocky spur on the other. It is provided with 8 irrigation sluices, and with 3 masonry weirs aggregating 1,192 feet in length, while its capacity is 2,799 millions cubic feet, and the area of its waterspread 8·95 square miles. The tank is an old native work, and the improvements undertaken by the British Government consist mainly of the extension of its capacity, and the increase of its water-supply. The chief sources of its supply are from anicuts across the Corteliaur and Cooum rivers. The catchment basin of the tank is about 400 square miles, in which area are 320 tanks, but the supply from this gathering ground is in some years exceedingly scanty. The sanctioned estimate for the work is Rupees 7,36,958, of which Rupees 6,55,310 represent the direct and Rupees 81,648 the indirect charges. In 1882-83 the area effectively irrigated and revenue derived was thus:—first crop, Acres 12,763, revenue Rupees 39,338, average rate per acre 3·08; second crop, Acres 3,216, revenue Rupees 8,294, average rate per acre 2·77; total revenue Rupees 47,632. The surplus revenue of the year, after paying all charges including interest, was Rupees 8,319, or 1·12 per cent. on the total capital outlay of Rupees 7,36,589.

555. The Palaur anicut was originally designed to give an improved supply to old native channels feeding a very large series of existing tanks. The work was commenced in 1855 and was finished in 1857. The river, which is very uncertain in its supply, rises in the Mysore plateau, and at the site of the anicut, has a drainage area of 3,974 square miles, and maximum flood discharge of 25,000 cubic feet per second. The anicut is situated in the North Arcot district and commands 201 tanks, of which 127 are on the northern bank of the river and 74 on the southern bank. It was breached in 1874, but was subsequently restored. As existing, the anicut is 2,634 feet in length between the wings, and has undersluices at either flank. On the north bank of the river three head-sluices supply the principal channels, one of which feeds the Cauverypauk tank, one of the largest reservoirs in the Presidency; and, on the south bank, is one head-sluice supplying numerous channels and tanks. The system is still incomplete, and the work remaining to be done consists principally of improvement to the channels and head-sluices, and the construction of new head-sluices and other masonry works. The area effectively irrigated, and the revenue derived, in the year 1882-83 was thus:—first crop, Acres 66,571, revenue Rupees 1,72,074, average rate per acre 2·60; second crop, Acres 20,584, revenue Rupees 45,290, average rate per acre 2·20; total revenue Rupees 2,17,364. The surplus revenue of the year, after paying all charges including interest was Rupees 4,581, or 0·27 per cent. on the capital outlay of Rupees 16,80,965. The completion estimates for the system, amounting to Rupees 19,93,893, of which Rupees 18,94,915 represent the direct

charges, and Rupees 98,978 the indirect charges, were submitted to the Government of India in June 1884. They anticipate that, on completion of the works about the year 1886-87, the ultimate area of irrigation will be 68,000 acres for first crop, and 34,000 acres for second crop, yielding a net revenue of Rupees 93,720, or 4·7 per cent. on the total capital outlay, and that the present deficit of Rupees 7,89,416 will not be cleared off until the year 1928.

556. The Pelandoray anicut is built across the Vellaur river, and affords a river supply to twelve tanks (which existed prior to the construction of the anicut) on the southern bank of the river in the South Arcot district. The anicut was commenced in 1870, but was not completed till 1876. In 1877 it was breached and was accordingly repaired by 1879. In the year 1880 it was again breached, and the head-sluice was carried away by an extraordinary flood which swept two feet over the wings. It was again restored and was in working order by 1882. To these two very serious accidents, occurring within the short period of four years after the construction of the anicut, must be attributed the very slow extension of irrigation and the very unfavourable financial position of the work. The accidents were due to an under-estimate of the maximum flood discharge of the river, which, as ascertained after the great flood of 1880, reaches the high figure of 85,000 cubic feet per second at the site of the anicut, from a catchment basin of 1,600 square miles. The completion estimates of the system, amounting to Rupees 4,48,246, of which Rupees 4,05,000 is for direct and Rupees 42,246 for indirect charges, were sanctioned at the beginning of the official year 1884-85. Against this sanction, the total outlay to the end of 1883-84 was Rupees 3,90,213, and the only works now remaining to be done are the increase to the storage capacity of four tanks from a total capacity of 62·3 millions cubic feet to 174·0 millions cubic feet. The ultimate area of irrigation is 15,728 acres, but in 1882, 3,560 acres only were irrigated under the system (which is the largest area yet irrigated) and yielded a gross revenue of Rupees 8,596. The net receipts of the year were Rupees 5,270, while the total charges, including interest, debited to the "Revenue" account, were Rupees 56,191 leaving a loss of Rupees 56,191 as the financial result of the year. As irrigation under the works is not at present popular with the ryots, it is anticipated that the full ultimate area of irrigation (15,728 acres) will not be reached till 1899-1900, when a return of 8·1 per cent. on the total capital outlay will be received. On this assumption of the growth of cultivation under the work, the interest charges will exceed the net revenue till 1891-92 and the balance of interest charges will not be paid off till 1914-15.

557. The Madras water-supply and irrigation extension project, which is a combined work affording a water-supply to the city of Madras, and irrigating an area of about 7,500 acres, was virtually completed about the year 1870-71. The work may be thus briefly described. From an anicut across the river Corteliaur, a stream with a drainage area of 837 square miles, a head sluice, and supply channel eight miles in length, lead the water to a reserve reservoir, known as the Cholavaram tank. From thence the water is conveyed to the main reservoir, known as the Red Hills tank, which has four irrigating sluices for the supply of the irrigation under it, and one sluice for the water-supply of the town of Madras. The two tanks were old native works, but were enlarged from a total capacity of 644 millions cubic feet to a total capacity of 3,523 millions cubic feet, of which the Red Hills tank alone occupies 2,753 millions cubic feet. The works have suffered some serious accidents since their construction, and have not been a financial success. According to the arrangements concluded with the Municipality of the Town of Madras, that body pay Rupee 1 for every 1,000 cubic yards of water supplied. The average annual consumption of water by the municipality may be taken as 143 millions cubic feet. A reserve supply is, in bad seasons, maintained in the Red Hills tank for the water-supply of the town of Madras, by arranging that, when the water in the tank falls to 6′ above the bed of the municipal supply channel, or 38·31 above mean sea-level, all irrigation under the tank is stopped. The total sanctioned estimate for the work is Rupees 18,54,463, of which Rupees 15,62,239 represent the direct, and Rupees 2,85,224 the indirect, charges. The total estimated amount of the capital outlay has recently been divided as follows:—Imperial ordinary Rupees 7,78,874, Provincial Rupees 10,75,589, which approxi-

mately represents the value of the water used for purposes of irrigation and town supply respectively. In 1882-83 the area of first and second crop effectively irrigated was 10,420 acres, and the revenue derived therefrom Rupees 24,135. The receipts by the sale of water to the town of Madras were Rupees 32,314, and the total financial result of the year was a loss of Rupees 23,579.

558. The Buckingham Canal is a salt water canal—tidal to a great extent wherever the river bars are open—extending for 261 miles along the east coast of the Presidency, from Pedda Ganjam in the Kistna district to Mercanum in the South Arcot district. At Pedda Ganjam, it communicates with the fresh water, high level, canals of the Kistna delta system, and thence with the Godavery system, and opens up traffic with the seaport of Cocanada, making a total length of mainline of navigable canal of 462 miles. The canal runs within three miles of the sea-coast throughout its entire length, and in many portions is within half mile of the sea. The excavation of the canal was begun as long ago as 1801, but, previous to the famine of 1876–1878, the expenditure incurred on it was only Rupees 5,49,078. During the famine, an expenditure of Rupees 29,24,924 was incurred on the work, of which Rupees 21,93,584 represented the normal value of work done and was accordingly debited to the canal, thus bringing up the total expenditure for works up to Rupees 27,42,662. The completion estimates of the system have lately been sanctioned, and amount to Rupees 92,94,954, of which Rupees 86,12,000 represent the direct charges, and Rupees 6,79,954 the indirect charges. Against this sanction, the total direct expenditure on capital account was only Rupees 50,12,722 to the end of 1883-84, so that it will be apparent that much yet remains to be done. With a view to expedite the completion of the canal, grants-in-aid from "Protective" Funds are given by the Government of India. The principal work required to complete the canal is (1) the isolation of the canal into "reaches" between rivers, by means of flood-gates, so as to allow the cross drainage free vent to the sea; (2) the deepening and widening of the canal to its full section of 20 feet bottom width, side slopes 4 to 1, depth 3 feet below level of lowest recorded tide in each "reach;" and (3) provision of locks, bridges, and boat basins, together with an extensive wharf at the city of Madras. The principal commodities carried by the canal are salt, firewood, and food-grains. In the paragraph on navigable canals further on will be found the particulars of traffic for the official year 1882-83, during which year, however, traffic was much impeded from various causes. Until the completion estimates have been more fully worked out, and the canal has been protected from the damages to which it is now liable from river-floods, it cannot be considered a safe line of communication. It is expected that the works will be completed by the year 1893-94. The prospects of the canal are favourable. In times of famine it will be invaluable, enabling the produce of the Godavery and Kistna deltas to be distributed through the districts of Nellore, Chingleput, and South Arcot. Its value as a cheap means of transport is already recognised, and has attracted much attention from the mercantile community, and should the Singareny coal fields in Hyderabad be opened up, a short line of railway to the canal will enable cheap coal to be procured in Madras, to compete with the patent fuel and English coal now consumed by the railway companies.

559. WORKS FOR WHICH A CONTINUOUS RECORD OF EXPENDITURE IS KEPT INDIVIDUALLY.—These works number 59 in all, and are distributed over nine districts. The list below the line [6] shows the names of the works so classed and the districts in which they are situated, together with the particulars of irrigation for each work or system for the year 1882-83, as furnished by the Public Works Department. The most important of these works are the Lower Coleroon anicut, the Poyney and Cheyaur anicuts, and the irrigation under the Bhawany, Amravatty, and Tambrapurny rivers. The reasons that rendered the construction of the Lower Coleroon anicut necessary have already been given in speaking of the Cauvery delta. From the north flank of the anicut two large channels take off for the supply of the irrigation in the South Arcot district. One of these channels feeds the great Veeraunum tank—the largest existing reservoir in the Presidency, having an embankment 12 miles in length and a capacity of 5,400 millions of cubic feet. From the south flank of the anicut another large channel feeds a number of branch channels in the Tanjore district. The Poyney and Cheyaur anicuts are built across

rivers of that name, and feed a series of tanks. The irrigation under the Bhawany and Amravatty rivers (which both rise in a rainy tract of country and have a constant supply of water) is entirely direct. Channels taking off from masonry dams convey water to the fields, and irrigate long strips of land on either bank of the river, lying in the river valley, and running nearly parallel to the river's course. The irrigation under the Tambrapurny is effected by means of tanks supplied by channels, into which the river water is diverted by seven masonry anicuts of very ancient date. The irrigation under this system is exceedingly valuable and is much sought after.

560. WORKS FOR WHICH A CONTINUOUS RECORD OF EXPENDITURE IS KEPT COLLECTIVELY.—Works of this class consist almost entirely of tanks, which are scattered in great numbers throughout the districts of the east coast and the central tableland. These tanks are formed in numerous ways, according to the nature of the ground they occupy. The majority are constructed by damming up the natural drainage lines flowing through valleys, by means of embankments sufficiently long to close the gorge of the valley. The reservoir thus formed is provided with masonry sluices for the supply of the irrigation under it, and with masonry surplus weirs, which act as a safety valve to the tank during floods. The old surplus weirs constructed by the natives are generally provided on their crest with a row of masonry pillars 3 or 4 feet high, placed about 3 feet apart, and are locally termed "calingulas." Towards the close of the rainy season, when the chief floods of the monsoon are over, these "calingulas" are closed by damming up the spaces between the pillars with turf, straw, and earth, so as to enable the tank to retain an extra supply of water in order to carry on irrigation during the dry season. The majority of tanks in the Presidency run in groups, and descending steppes of land are occupied by a succession of reservoirs, the higher feeding the lower from its surplus supply, and the whole group forming one connected scheme of irrigation. According to the latest returns, the total number of Government tanks in the Presidency is 31,648, and it can therefore be readily imagined that the labour involved in keeping up the embankments of these tanks to a proper margin of safety, so as to guard

[6] STATEMENT SHOWING THE AREA IRRIGATED AND REVENUE DERIVED FROM WORKS FOR WHICH A CONTINUOUS RECORD OF EXPENDITURE IS MAINTAINED INDIVIDUALLY FOR 1882-83.

District.	Names of works.	Total area irrigated, 1st crop.	Total revenue from irrigation.
			RS.
Vizagapatam.	Six anicuts on the Shaurada river.	11,764	27,784
	Four anicuts on the Varahanuddy river	5,533	14,636
	Total ...	17,297	42,420
Kurnool ...	Cumbum tank	4,952	39,568
Chingleput	Corteliaur river—Valloor tank ...	4,856	6,591
	Madrantacam tank	5,372	14,099
	Total ...	10,228	20,690
North Arcot.	Cheyaur anicut	17,455	62,029
	Poyney do.	19,988	66,531
	Total ...	3,71,443	1,28,560
Salem ...	Baroor tank (since classed as Productive Public Works) ...	286	1,166
	Pennagondapooram tank ...	205	744
	Total ...	491	1,910
Tanjore ...	Lower Coleroon anicut	22,860	66,689
South Arcot.	Coleroon Lower anicut—		
	Rajavoicaul	21,455	64,313
	Vadavaur	11,462	39,234
	Khansahib canal	11,608	30,680
	Veeraunum tank	38,214	1,09,416
	Vellaur river—Shattatope anicut.	25,360	67,876
South Arcot—(*contd.*)	Manimooctahnuddy—		RS.
	Vriddhachellam anicut ...	5,074	16,839
	Mehmatore do. ...	3,018	11,381
	Meiyorenuddy-Cauttoomylore anicut	249	1,080
	Guddilam river—Trivetty anicut.	5,575	22,958
	Do. Vanamadevy do....	690	2,729
	Do. Tiroovandipooram. anicut.	1,643	8,797
	Culloor river—Vicravandy anicut.	1,244	2,839
	Ponniaur—Tricalore do. ...	16,339	53,219
	Total ...	141,929	4,31,361
Coimbatore	Bhawany river—		
	Kodnelly anicut. Todapully channel.	13,672	97,557
	Kodnelly anicut. Arcancottah do. ...	3,945	25,969
	Calingaroyen anicut	10,912	97,374
	Amravatty river (twenty-two channels)	25,645	1,39,379
Tinnevelly.	Tambrapurny river—		
	Ariyanaickapooram anicut ...	5,124	64,413
	Palavoor do. ...	8,405	93,800
	Soottamully do. ...	6,163	62,194
	Maroothoor do. ...	17,100	1,84,041
	Kodamailalagyan do. ...	2,855	15,642
	Nathiyoonny do. ...	2,486	19,608
	Cunnadiyan do. ...	11,177	1,57,810
	Total ...	53,310	5,97,508
	Grand Total ...	3,42,684	16,88,985

against their breaching during the heavy rains of the monsoons, and the inspection, repair, and restoration of the very numerous masonry works attached to them, are such as to tax very severely the resources of the Irrigation Branch. For administrative purposes (as will hereafter be noticed) a distinction has recently been made between (1) tanks irrigating an area of 200 acres and upwards, and (2) tanks irrigating an area below 200 acres. The statement at foot [7] shows the numbers of works of each class, together with their irrigated area and revenue during 1882-83, in each district of the Presidency, as furnished by the Public Works Department. In addition to the works included in this statement, there are large numbers of private tanks and zemindarry tanks, with which the Irrigation Branch have no concern.

561. PROTECTIVE PUBLIC WORKS.—The only work yet classed under this head is that known as the Rooshcoolya Project. The work was sanctioned by the Secretary of State in 1883, and the preliminary operations for commencing work were undertaken towards the close of the official year 1883-84. The project consists in utilising the waters of the rivers Mahanuddy and Rooshcoolya, in the Ganjam district, by means of canals to be used both for irrigation and navigation. These rivers unite at the town of Aska, and flow into the sea at Ganjam, and, as they do not rise in the Western Ghauts, are liable to be affected by the failure of the south-west monsoon rains. In order to supplement their supply, two large reservoirs will be formed above them, the reservoir for the Mahanuddy having a capacity of 2,457 millions cubic feet, and that for the Rooshcoolya 2,160 millions cubic feet. From an anicut on the right bank of the Mahanuddy, a channel, $19\frac{3}{4}$ miles long, and provided with a head sluice, will lead to the Rooshcoolya river. This channel will irrigate 12,000 acres, will be made navigable throughout, and will be provided with a double tail lock. Where it ends in the Rooshcoolya river, an anicut will be built, and from the right bank of the Rooshcoolya, a second canal, $63\frac{1}{4}$ miles long, and navigable for the first $44\frac{1}{4}$ miles of its length, will irrigate a further extent of 108,000 acres. The works will be completed about the year 1894-95, and the full area of 120,000 acres is expected to be cultivated about the year 1897-98. The total sanctioned estimate is Rupees 28,60,239, of which Rupees 26,01,386 are for direct charges and Rupees 2,58,853 for indirect charges, and the net revenue anticipated, on completion of the works, is Rupees 1,44,312, or 5·1 per cent. on the total capital outlay.

562. WORKS PROJECTED.—Many projects of more or less magnitude have been, at various times, proposed and partially investigated. Only one of these schemes

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[7] LIST OF TANKS WITH PARTICULARS.

Districts.	Tanks irrigating above 200 acres.			Tanks irrigating below 200 acres.			Grand Total.		
	Number.	Total area irrigated, 1st crop.	Total revenue from irrigation.	Number.	Total area irrigated, 1st crop.	Total revenue from irrigation.	Number.	Total area irrigated, 1st crop.	Total irrigation revenue.
			RS.			RS.			RS.
Anantapore	101	39,106	1,39,838	1,495	50,340	1,59,162	1,596	89,446	2,99,000
Bellary	131	28,963	1,60,586	898	24,347	70,225	1,029	53,310	2,30,811
Chingleput	545	188,433	4,89,298	2,090	126,933	2,75,318	2,635	315,366	7,64,616
Coimbatore	69	33,097	1,58,568	242	10,810	41,501	311	43,907	2,00,069
Cuddapah	156	53,916	2,41,341	2,950	133,893	4,31,761	3,106	187,809	6,73,102
Ganjam	215	82,476	1,30,345	2,654	112,280	1,35,759	2,869	195,026	2,66,104
Godavery	110	32,326	44,801	1,205	31,146	31,681	1,315	63,472	76,482
Kistna	190	22,274	57,636	248	16,231	44,183	438	38,505	1,01,819
Kurnool	46	14,980	57,311	671	23,875	78,832	717	38,855	1,36,143
Madura	207	89,298	2,45,801	1,911	68,547	1,29,415	2,118	157,845	3,75,216
Nellore	209	118,200	4,10,874	563	33,188	1,02,562	772	151,388	5,13,436
North Arcot	171	59,034	2,10,814	3,906	141,611	5,01,770	4,077	200,645	7,12,584
Salem	78	21,435	1,02,840	3,194	75,246	2,50,833	3,272	96,681	3,53,673
South Arcot	246	72,068	2,31,325	2,849	141,045	4,22,462	3,095	213,113	6,53,787
Tanjore	52	17,283	32,524	607	28,973	54,033	659	46,256	86,557
Tinnevelly	174	76,059	4,34,471	1,739	68,881	3,70,804	1,913	144,940	8,05,275
Trichinopoly	148	67,572	2,25,720	1,134	64,049	1,68,630	1,282	131,621	3,94,350
Vizagapatam	24	11,614	21,691	420	18,763	52,526	444	30,377	74,217
Total ...	2,872	1,028,134	33,95,784	28,776	1,170,158	33,21,457	31,648	2,198,292	67,17,241

will here be mentioned, viz., the Periyaur Project, which has been fully worked out, and has been sent to the Government of India for sanction. The Periyaur Project is one for the extension of irrigation in the Madura district, which, from its physical configuration, receives a very scanty and uncertain supply of rain from the south-west monsoon, and has but one river of any size running through it. This result is due to the fact that the range of hills on the northern border of the district, separating it from Travancore, rise up very abruptly from the plains of Madura, while on the Travancore side they stretch away towards the sea with a long and gentle fall. The district has, at various periods of its history, suffered severely from scarcity, while from time immemorial, its scanty rainfall has been stored in a multitude of tanks, with which it is literally dotted from end to end. Its one river, the Veigay (which has a very uncertain flow), supplies a large number of tanks, by which it is drained nearly dry on its progress eastwards to the sea. To remedy this state of things, the Periyaur Project was planned. The scheme provides for the diversion of the waters of the Periyaur—a river rising in Travancore territory, in a region of heavy annual rainfall, and flowing towards the West Coast—into the valley of the Veigay river by (1) a dam closing the valley of the Periyaur, and thereby storing 13,300 million cubic feet of water; (2) a tunnel through the watershed ridge between the two valleys, for the purpose of drawing off the water from the reservoir thus formed; and (3) the necessary regulating works for passing the water thus diverted into the tanks now inadequately supplied by the Veigay river. The dam (which will be a work of great magnitude) will be 155 feet in height, constructed of concrete throughout. The complete estimate for the work amounts to Rupees 64,41,463. The work is expected to be of the most remunerative character, and has been recommended for sanction as a Productive Public Work. The full ultimate area to be brought under irrigation is estimated at acres 101,000 and the net annual revenue therefrom Rupees 5,74,600, or 8·92 per cent. on the total capital outlay.

563. CONSERVANCY OF IRRIGATION WORKS.—In general, the entire maintenance of the irrigation works for which capital and revenue accounts are kept rests with the Irrigation Branch of the Public Works Department. In the Cauvery delta, however, which (as has already been noticed) is a very ancient system of irrigation, the Irrigation Branch only deals with the maintenance and repair of all masonry works and embankments, and the annual silt clearances required on channels that irrigate the lands of two villages or more, the villagers themselves undertaking all the necessary repairs on the smaller channels. On all irrigation works other than those for which capital and revenue accounts are kept, the upkeep of the works also devolves, in most cases, upon the Irrigation Branch; but, in some of the more ancient river channels, the works are maintained entirely by the villagers concerned; and, on other channels, the villagers supply customary labour, or "coodimaramut," by which agency, in former times, the State maintained the great majority of its irrigation works. The old ordinance of "coodimaramut," or unpaid labour of the ryots, has died out on the numerous tanks throughout the Presidency, and is only now in force on channels, where the ryot sees it is to his own interest to execute himself such repairs as are necessary, in the interests of irrigation, from time to time. On channels, clearances of silt are all the repairs that are usually required, and are absolutely necessary, at short intervals, to enable the ryot to get any water at all. Hence he readily contributes his free labour on works of this class. The case of tanks is different. Their irrigation proceeds until the final moment when the tank bursts, and, there being therefore no immediate and pressing need, the small repairs—which done at the right time would prove of incalculable benefit—are left undone, until they become so considerable that either the tank breaches, or the defects attract the notice of the Government officers, and are repaired in the usual course by the Irrigation Branch. Owing to the disuse of the custom of "coodimaramut," and to the fact that the vast numbers of the tanks scattered throughout the country preclude the possibility of their proper upkeep, or even of their inspection, by the officers of the Irrigation Branch, much attention has been lately attracted to the question of their restoration in the present, and their permanent and efficient upkeep in the future. It must be noted that the tanks have not, as is usually supposed, rapidly deteriorated of late

years. The deterioration of the works has been gradual and inevitable, because a tank must, from its nature, gradually silt up and therefore deteriorate as years go by. The time has now come when a large number of the tanks of this Presidency —works, without exception, of old construction—have reached a stage which renders their deterioration apparent to all observers owing to the great curtailment of their irrigating capacity. But the process has been gradual and natural. As already stated the number of Government tanks in this Presidency is 31,648. These works are scattered over a vast extent of country, and, as experience has demonstrated that it is impossible for the Irrigation Branch to attend properly to the upkeep of so great a number of works, three main principles of concerted action have been decided on, in view to the present upkeep and restoration of the works and their future maintenance. First, a special Public Works Department establishment is to be employed in grouping the works, and estimating for their requirements, the actual work required being afterwards done by the ordinary Public Works establishment. Secondly the Irrigation Branch is to be relieved of the duty of maintaining all tanks considered not to need any professional supervision. These tanks are to be denominated " Minor "—in contradistinction to those retained by the Irrigation Branch, and designated as " Imperial,"—and to be maintained by the Revenue Department. Thirdly until the result of the investigations of the special establishment are known, it is impossible to decide definitely what works should be respectively classed as " Imperial " and " Minor :" but for the present all works irrigating 200 acres or upwards are to be classed as " Imperial," and works irrigating under 200 acres as " Minor," and this classification into " Imperial " and " Minor " is to be finally revised on completion of investigations for each river basin. This is the state at which matters now stand with regard to the upkeep and restoration of the tanks of the Presidency. For some two years past works classed as " Imperial " have been maintained by the Irrigation Branch, and works classed as " Minor " by the Revenue Department; while the special establishment is now at work.

564. REGULATION AND DISTRIBUTION OF WATER ON IRRIGATION WORKS.—No uniform system exists for the regulation and distribution of water required for irrigation. In the Godavery and Kistna deltas the control and distribution of the water from the time it enters the canal to its exit from the village sluice is in the hands of the Public Works Department, who are in possession, from day to day, of information as to the state of the supply at all the principal regulating works. Once discharged from the village sluice the field distribution rests with the ryots themselves. On the Pennair anicut system, the regulation of the water-supply among the several channels is in the hands of the Public Works Department, while the distribution from the tanks rests with the ryots. On the Kurnool Canal the regulation and distribution of the water-supply is entirely in the hands of the Public Works department. In the Cauvery delta system the sluices built across the heads of the various offtakes from the river are managed by the Public Works Department, while the regulation of the distributary channels rests generally with the peasant proprietors of the soil, locally termed the " Mirassidars." Where the channels irrigate many villages, there is a well-recognised custom, defined generally in a written document, settling the days and hours during which each village is to take water, and similar rules lay down each man's turn within the village. An establishment, paid and appointed by the " Mirassidars," manages the distribution of water to the fields. On all the large systems, such as the Palaur anicut, &c., where a series of tanks is fed from an anicut, the regulation of the water at the head works is in the hands of the Public Works Department, while the distribution from the tanks rests entirely with the ryots. On the channel systems of irrigation various rules apply ; on some, the regulation of the supply from the river is managed by the Public Works Department, while the distribution of water from the channel itself is controlled by the Revenue officers ; on others, the entire control is in the hands of the ryots, and no Revenue officer or Public Works officer interferes with them. On the Tambrapurny channels above the Sreeveicoontam anicut, the Public Works Department controls the supply entering the upper channels and passing the weirs, but have no authority to check waste of water on the channels, or to see that it is fairly distributed, and each ryot therefore practically takes as much

water as he likes. On the Shreeveicoontam anicut system itself, the regulation and distribution is in the hands of the Public Works Department. The disposal of water stored in tanks rests entirely with the ryots interested, who regulate the sluices, distribute the supply, and manage for themselves every detail.

565. Classification of Revenue from Irrigation Works.—The revenue derived from the irrigation works of the Presidency is either direct or indirect. The former, properly speaking, represents revenue separately assessed for water supplied by the works, and the latter exhibits the increase of land revenue, which would not have been obtained but for the works. In this Presidency, however, where the ryotwarry system of tenure prevails, the Government is virtually sole landlord and also proprietor of the water, and its demand for irrigated land is commonly a lump sum, in which no distinction is made between the charge due for the occupancy of the land and that due for the use of the water. The whole land revenue is therefore assessed and collected in the Revenue Department, and is credited to the head "Land Revenue" without any separation between "Land Revenue Ordinary" and "Land Revenue Irrigated." The water-rates or bulk of the irrigation revenue proper are therefore shown under indirect revenue, while the direct revenue comprises only navigation and other miscellaneous receipts collected in the Public Works Department. In the single case, however, of the Kurnool Canal, the water-rates are credited to direct revenue, as the system in vogue, under the late Madras Irrigation and Canal Company, was continued after the transfer of the canal to Government. In addition to the anomaly which exists in Madras of showing the great bulk of the irrigation revenue proper as "Indirect Revenue," a further anomaly is caused by the difference between the official year ending 31st March and the agricultural or revenue year ending 30th June. Owing to this difference between the official and revenue years, the "direct" revenue due to irrigation collected in the Public Works Department is shown for the official year, while the "indirect" revenue collected in the Civil Department is the net ascertained demand for the revenue year. From the irrigation revenue thus ascertained, the portion due in the more ancient irrigation works to the old irrigation, which existed prior to the improvements and additions carried out by the British Government, is deducted, and the share of enhanced land revenue, or assessment on waste lands which would not have been brought under cultivation but for the irrigation works executed, is added thereto. It has already been stated that the water-rates on irrigated lands are collected in the Civil Department. In order to provide for these collection charges, a fixed percentage is deducted from irrigation. The rate at which this deduction has hitherto been made is 7·2 per cent. on the ascertained demand, but, from the commencement of the official year 1884-85, the rate has been reduced to 5 per cent., which is found to be approximately the actual cost of collection. In the accounts of the Finance Department, revenue derived from irrigation and navigation works is shown under the following heads :—G. Revenue from Productive Public Works.—XXVII—Irrigation and Navigation (Direct Receipts); XXVIII—Portion of Land Revenue due to Irrigation. H. Receipts on account of Public Works not classed as Productive.—XXXI—Irrigation and Navigation. Irrigation revenue due to works not classed as Productive is not shown separately in these accounts.

566. Except in the Godavery and Kistna deltas and on the Kurnool Canal, the assessment on irrigated land is consolidated, and the shares due respectively to "land" and "water" can only be approximately determined. Until 1880 no information existed on this head, but, as it was absolutely required in order to determine the financial position of works of irrigation, an approximation has since been made of the "revenue due to irrigation" as distinguished from the total revenue derived from irrigated land, for (1) all Productive Public Works, and (2) Irrigation and Navigation Works, for which capital and revenue accounts are kept, not classed as "Productive" from the commencement of the works up to date; similar information for (3) the works for which individually a continuous record of expenditure is kept is still under preparation. For the year 1882-83 the information for this class of works has already been prepared, as well as for (4) all other Irrigation and Navigation works for which capital and revenue accounts are not kept, but it is not considered necessary that the accounts should be prepared for

previous years in the case of this last class of works. For the determination of the share due to irrigation resulting from the disintegration of consolidated assessments, elaborate rules have been framed. Briefly in the case of single wet crop the rules are (*a*) where assessments have been revised by the Settlement Department, the consolidated assessments are resolved into land and irrigation revenue respectively, by assigning to "land" the amount proper to dry lands of the same class and sort in each village, and the remainder to "water;" (*b*) where settlements have not been revised, the average dry rate of the village, or where that is not available of the talooks, or where that cannot be determined of the district, is applied to the total area irrigated. The product is then assigned to "land" and the remainder to "water." With regard to double-crop lands, the charge for the two crops is consolidated—the charge for second crop being essentially in the nature of a water-rate. Everywhere but in Tinnevelly, the normal charge for double-crop land is one-and-half times the charge for single-crop land of the same class and sort, and it therefore follows that one-third of the consolidated double-crop assessment represents the normal second-crop charge for the Presidency generally. In Tinnevelly, the normal charge for double-crop land is one and two-thirds that for single crop, and the normal second-crop charge in Tinnevelly is therefore two-fifths of the consolidated double-crop assessment. The additional charge for second-crop assigned to "water" is therefore two-fifths of the entire assessment in the Tinnevelly district, and one-third in all other districts, while the remainder is assigned to "land," in the same manner as for single-crop land.

567. In the Godavery and Kistna deltas and on the Kurnool Canal, the assessment on irrigated lands are not consolidated, but a separate water-rate is levied on the area irrigated. The water-rates now in force are shown at foot.[8] On the Kurnool Canal, with a view to stimulate the ryots to extend their wet cultivation by converting their lands from dry into wet, certain concessions are allowed on the above rates as follows. A reduction at 50 per cent. for the first five years, and at 25 per cent. for the second five years, is made, in the case of lands which have not been cultivated within the last ten years. For blocks of 50 acres and upwards of unoccupied lands taken up for irrigated cultivation, water is supplied, without restriction as to crops, free of charge for five years, and at half rates for another five years.

568. CLASSIFICATON OF EXPENDITURE ON IRRIGATION WORKS.—Expenditure in the Irrigation Branch is shown under the heads below mentioned [9] in the accounts of the Finance Department. In budget estimates and accounts of the Public Works Department, the same heads of account are adopted, except that the head of account denoted by H is sub-divided into the budget heads shown in the next note.[10]

[8] WATER-RATES IN THE GODAVERY AND KISTNA DELTAS AND ON THE KURNOOL CANAL.

—	Godavery and Kistna deltas.	Kurnool canal.
	RS.	RS.
Single wet crop, per acre ...	4	4
Second wet crop, per acre ...	4	3
If compounded for both crops for not less than five years ...	6½	6
Single dry crop ...	2	1
Second dry crop on irrigated lands if not compounded ...	2	1
Garden crop ...	8	6
Garden crop if compounded for not less than five years ...	6½	...
Crops requiring frequent floodings ...	...	3

[9] ACCOUNT HEADS FOR IRRIGATION EXPENDITURE.

N. Productive Public Works (Capital Account).
51. Irrigation and Navigation.
G. Productive Public Works (Revenue Account).
38. Irrigation and Navigation (Working Expenses).
H. Public Works not classed as Productive.
44. Irrigation and Navigation.
F. Famine Relief and Insurance.
34. Protective Works—Irrigation.

[10] BUDGET HEADS FOR IRRIGATION EXPENDITURE ACCOUNTS.

Imperial.

I. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—Capital Account.
II. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—Revenue Account.
III. Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.
IV. Agricultural Works.

Each budget head is divided into departmental heads as shown in the next note.[11] Expenditure shown under these departmental heads is termed "direct" as distinguished from that known as "indirect," which is not shown in the Finance Accounts of the department, but only in the Capital and Revenue Accounts, or the Administrative Accounts as they are otherwise called, in view to the profit or loss on the works being exactly determined. "Indirect charges" are of three kinds (1) Capitalized abatement of land revenue; (2) Loss by exchange; (3) Leave and pension allowances. These charges are calculated as follows:—Item (1) 25 times the annual assessment of lands occupied by the works; item (2) at the current rates of exchange on payments in England, which are shown in the Indian accounts at par; item (3) at 14 per cent. on establishment charges. With regard to the old maintenance charges of (1) "Productive Public Works," and (2) "Irrigation and Navigation Works for which capital and revenue accounts are kept not classed as Productive," such charges are deducted from the total charges on "Revenue," and are added to the expenditure under the head "Irrigation and Navigation Works, for which neither capital nor revenue accounts are kept."

569. MANAGEMENT OF TRAFFIC AND TOLLS AND LICENSE FEES ON NAVIGABLE CANALS. —The navigable canals in this Presidency under the charge of the Public Works Department are shown at foot.[12] The circumstances of the Godavery and Kistna Canals are most favourable for navigation, as there are few locks, owing to the gently sloping nature of the country permitting the main lines to be carried on without such accessories to navigation. On these canals, as well as on the Buckingham Canal, private boats carry all the traffic. The late Madras Irrigation and Canal Company, when they had charge of the Kurnool Canal, assumed the function of carriers; but, after the transfer of the canal to Government, the boats were let out to private individuals, who now conduct the traffic on the canal, which was also, from July 1883, brought under the same navigation rules as the three other canals. Prior to this date, there were no rules authorized by Government on the Kurnool Canal, the rules for navigation formerly in force under the company being in vogue. Boats are licensed to ply on these canals on payment of an annual fee, and those not holding licenses are required to pay tolls for each trip. Prior to July 1883, separate licenses were issued for the Godavery and Kistna Canals,

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Provincial.

V. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—Capital Account.
VI. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—Revenue Account.

[11] SUB-DIVISION OF BUDGET HEADS.

Budget heads.	*Departmental heads.*
1. Productive Public Works—Capital Account. 2. Imperial, Irrigation, and Navigation Works for which Capital and Revenue Accounts are kept—Capital Account. 3. Provincial, Irrigation, and Navigation Works for which Capital and Revenue Accounts are kept—Capital Account. 4. Protective Works.	I. Works. II. Establishment. III. Tools and Plant. IV. Suspense Account. V. Less receipts on Capital Account.
5. Productive Public Works—Revenue Account. 6. Imperial, Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—Revenue Account. 7. Provincial, Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—Revenue Account.	IA. Extensions and Improvements. IB. Maintenance and Repairs. IC. Compensation. II. Establishment. III. Tools and Plant.
8. Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept. 9. Agricultural Works.	Original Works, Repairs, Establishment, Tools and Plant, Profit and Loss, Suspense Account.

[12] NAVIGABLE CANALS UNDER CHARGE OF THE PUBLIC WORKS DEPARTMENT.

—	Present lengths.	Ultimate lengths.
	MILES.	MILES.
Godavery Canals	458	502½
Kistna Canals	278	349
Buckingham Canal	261	261
Kurnool Canal	190	190
Total ...	1,187	1,302½

and for each section of the Buckingham Canal, but, with a view to remove obstacles and stimulate traffic, the system of using separate licenses was abolished in 1883, although it involved a reduction of revenue, and the rates of license fees and tolls shown at foot [13] are now in force. A license entitles the vessel to use any, or all, the canals without any other payment whatever. A toll once paid clears the vessel over all the canals, and in any direction, for a period of six weeks, and rafts for one month. Each passenger is allowed a space of $7\frac{1}{2}$ square feet. The extreme dimensions of any vessel allowed to navigate the canals are 90 feet in length, 13 feet breadth over all, fixed fittings $6\frac{1}{2}$ feet high over water-level, and draught 2 feet. Rafts are not allowed to exceed $90' \times 12' \times 2$. Toll stations are established at the head locks of each section of the Godavery and Kistna deltas, at all tidal locks, at the Ellore lock, and at four stations on the Buckingham Canal. A wharfage fee of 1 anna per ton on the registered tonnage on each boat loading or unloading is charged at the authorized wharfs, but at present the only wharfage station is at Madras. Executive Engineers, and officers authorized by them, are vested with the power of suspending the license of any vessel for overloading, wrong mooring, not carrying lights, not producing licenses, or for any other infringement of the rules prescribed for navigation as follows:—15 days for the first offence, 30 days for the second offence, 60 days for the third offence in the same year. For a fourth offence the license may be cancelled. The next statement [14] shows the statistics of traffic for the past two years on the four canals. On the Kurnool Canal the traffic is worked by Government boats let out on hire.

570. Departmental Constitution of Branch.—The Chief Engineer for Irrigation—who is also Joint Secretary to Government in the Irrigation Branch, and in that capacity lays before Government all matters requiring its decision—is the responsible executive head of the branch in all professional matters connected with the special subjects pertaining to the irrigation branch; and, together with the Examiner of Public Works Accounts, who is the head of the Accounts Branch, exercises control over the officers of the department employed on works of irrigation and navigation, in respect to the expenditure and disbursement of public money, the

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[13] License Fees and Tolls on Navigable Canals.

License fees.

Cargo boats	Rupees $2\frac{1}{2}$ a ton of 50 cubic feet.	
Passenger boats not bound to carry all castes, and charges for freight not limited	,, 5	do.
Passenger boats bound to carry all castes, and to charge for freight not more than 2 pies per mile per passenger in the general cabin, and 3 pies per mile per passenger in the fore or aft cabin, including one cooly load of baggage	,, 3	do.
Steamers	,, 5	do.
Pleasure boats	,, 1 per boat.	

Tolls.

Cargo or passenger boat	,, $\frac{1}{2}$ per ton of 50 cubic feet.	
Steamer	,, 1	do.
Pleasure boats	,, 3 per boat.	
Timber raft	,, $\frac{1}{2}$ per 100 square feet.	
Bamboo raft	,, $\frac{1}{4}$	do.

[14] Traffic on Navigable Canals.

Particulars.	Godavery.		Kistna.		Buckingham Canal.		Kurnool Canal.	
	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.
Laden boats, number of trips.	19,000	20,520	7,627	7,566	24,982	17,494	...	...
Empty boats, do. ...	15,025	17,096	4,472	4,220	2,817	7,166	...	...
Passenger boats, do ...	21,678	22,448	8,043	9,867	7,970	4,127	...	...
Tonnage	234,564	262,530	110,202	114,710	337,992	217,983	2,773	3,234
Ton-mileage	6,465,893	7,343,834	3,085,411	3,399,929	4,961,087	7,850,424	...	...
Value of goods ... Rs.	1,42,00,998	1,26,17,048	91,04,133	92,03,167	1,00,35,339	9,823,228	3,27,500	7,08,867
Number of passengers ...	422,783	946,813	221,069	451,172	98,802	56,664	...	...
Tolls and license fees Rs.	57,439	48,472	36,435	22,916	99,758	47,721	10,683	4,592

custody of stores, and the due submission of accounts. The Chief Engineer for Irrigation also prepares the budget estimate and all reports relating to his branch, and it is his special duty to check and examine all designs for irrigation projects, and to lay them before Government, accompanied by a distinct expression of his opinion regarding their merits. He is assisted in his office work by an Assistant Chief Engineer for Irrigation, who is also Under Secretary to Government, and by a suitable office establishment, but no separate and distinct executive establishment is maintained for employment upon irrigation works, owing to the exceedingly scattered nature of such works in the Madras Presidency. The officers and subordinates employed on irrigation works are provided from the one general list of the Public Works Department; attend to other public works besides those of irrigation; and as regards their posting and general discipline are under the orders of the Chief Engineer, Public Works Department. The cost of the one general establishment is debited, in the first instance, to Provincial Funds, and the Irrigation Branch is charged with a fixed percentage, on account of the portion of the establishment employed on irrigation works, as a contribution to "Provincial," at the following rates:—(*a*) 23 per cent. on expenditure on original works and repairs, excluding expenditure in England and payments for land compensation; (*b*) 10 per cent. on the "direct" revenue collected in the Public Works Department; (*c*) 6 per cent. on the gross "indirect" revenue (i.e., revenue realised in the Civil Department and credited to the Public Works Department) due to Productive Public Works, including the share due to old irrigation, but excluding the enhanced share of land revenue. It is also under contemplation to make a further charge to "irrigation" on account of establishment, by means of a fixed percentage on the "indirect" revenue due to works not classed as Productive.

571. LAW.—At the present time, the Act known as "The River Conservancy Bill" is the only legislative enactment affecting irrigation, which has passed the Madras Legislative Council. As long ago as 1856, a draft enactment was instituted to provide for the safety of life and property, during river-floods, by means of a Bill enabling the officers of Government to attend properly to the conservancy of the great rivers of the Presidency, but it was only in March 1884 that the Bill, after being under consideration for several years, was finally amended and passed by the Madras Legislative Council, and only now awaits the sanction of the Supreme Government to become law. The principal object of the Bill is to give the officers of Government full power to prevent and prohibit the damage, which is at present inflicted on both private and public property, by the unauthorized action of private individuals, in forming and removing constructions within river-beds. Formerly, no officer of Government could in any way check the action of individuals in such matters, without rendering himself liable to a suit for damages, and much public money was accordingly spent on works designed to counteract the evil effect of private or unauthorized interference with the river-beds. The Act provides for the appointment of officers to be styled "Conservators of Rivers," who have power to prohibit cultivation within river-beds; to direct the removal of all constructions, plantations, &c., which they deem to be an obstruction to the course of the river; and to take any measures which appear to them to be necessary for the safety of life or property, in connection with any river to which the Act has been applied. An important Bill now under consideration is that known as the "Madras Irrigation Act," which was originally drafted in 1883, was circulated to the Governments of Bengal, Bombay, and the North-West Provinces, for opinion on certain points, and has lately been referred to a committee. The object of the Bill is to make provision for the construction, maintenance, and regulation of canals, for the supply of water therefrom, and for the levy of rates for the water so supplied. It will empower canal officers to duly inspect and regulate the water-supply; to remove obstructions; to execute repairs where the owner of a "water-course" fails to execute the repairs required of him by the Bill, and to charge the cost of such repairs to the owner; to settle disputes as to rights and liabilities of persons interested in a "water-course;" and to take into custody persons causing wilful damage to canals, or interfering, without proper authority, with the supply or flow of water.

572. STATISTICS.—The statement at foot [15] shows the extent to which this is an irrigating province, as compared with others, the figures taken for illustration being the proportion between area cultivated and area actually irrigated. Of the irrigated land, about 8 million acres are protected by the better class of irrigation works, and about 12 millions by wells. In Madras as in Bombay, the practice is to record as irrigated only the land which is specially assessed under that designation, not that which is irrigated from private sources, such as wells made at the ryot's expense; and there is almost complete want of information as to the area of irrigated zemindarry lands. Subject to this very considerable correction it appears from the revenue statistics that the total area assessed at irrigated rates is 5,322,000 acres, or about 17 per cent. of the cultivated area (31 million acres). Of this, 2 million acres are supplied by the Government irrigation works, of which 1,700,000 acres are due to the Cauvery, Kistna, and Godavery deltaic canals. The remaining 3 million acres are supplied almost entirely from tanks. On the Government lands (putting the great zemindarries aside) there are about 400,000 wells, and the area irrigated by them can hardly be less than 2 million acres, which, however, is not assessed as irrigated. If this is added to the figures stated above, it makes a total of 7⅓ million acres, or nearly 25 per cent. of the cultivated area in Government lands, which approaches to the proportion in the North-Western Provinces and Oudh, and exceeds that of the Punjaub. The foregoing figures relate to the period anterior to the famine of 1876–78. The next statement [16] shows the amount of revenue taken in this Presidency off irrigated lands, giving the area of irrigated lands, and the revenue (land assessment, 'plus' water tax) therefrom obtained, for each district according to the accounts of Fusly 1292 (1882-83). The item for Kurnool includes Irrigation Company's canal works taken up by Government.[17]

[15] PERCENTAGE OF IRRIGATION TO CULTIVATED AREA, THROUGHOUT INDIA.

Province.	Area ordinarily cultivated.	Area ordinarily irrigated.	Percentage of irrigation to cultivation.
	ACRES.	ACRES.	
Punjaub	21,000,000	5,500,000	26·2
North-Western Provinces and Oudh ...	36,000,000	11,500,000	32·
Bengal	54,500,000	1,000,000	1·8
Central Provinces	15,500,000	770,000	5·
Berar	6,500,000	100,000	1·5
Bombay	24,500,000	450,000	1·8
Scinde	2,250,000	1,800,000	80·
Madras	32,000,000	7,300,000	23·
Mysore	5,000,000	800,000	16·
Total ...	197,250,000	29,220,000	14·8

[16] IRRIGATED AREA AND REVENUE THEREFROM.

Districts.	Irrigated area and revenue.		Districts.	Irrigated area and revenue.	
	Area.	Revenue.		Area.	Revenue.
	ACRES.	RS.		ACRES.	RS.
Anantapore	113,742	3,56,624	Malabar	Not available.	
Arcot, North	377,897	13,49,170	Madura	232,774	6,04,011
Arcot, South	396,606	17,65,352	Neilgherries	Not available.	
Bellary	71,911	2,59,464	Nellore	224,969	9,91,126
Chingleput	429,530	13,22,393	Salem	185,030	5,08,077
Coimbatore	141,940	6,60,584	Tanjore	1,004,047	40,97,386
Cuddapah	240,273	8,52,939	Tinnevelly	377,353	18,32,430
Ganjam	195,738	5,17,552	Trichinopoly	246,776	7,71,707
Godavery	613,518	24,60,561	Vizagapatam	47,708	1,54,412
Kistna	286,613	12,98,148			
Kurnool	72,358	2,83,272	Total ...	5,258,783	2,00,85,280

[17] SKETCH HISTORY OF ARRANGEMENTS FOR ASCERTAINING REVENUE DUE TO IRRIGATION.—After a discussion that had lasted many years, steps were taken in 1876 to investigate and determine the share of the revenue derived from irrigated lands that was due to irrigation. The inquiry was at first directed to the great irrigation works of the Presidency which had been constructed chiefly from loan funds. The first system taken up was the Kistna anicut, and the report on it was submitted in the beginning of 1878: this was followed in 1879 by the report on the Godavery system, in 1882

573. The complete statistics relating to irrigation must be looked for in Vol. II, App. LIX, where will be found three statements showing the irrigable area, the occupation, the actual irrigation, the assessment, and the actual revenue solely derived from the various classes of irrigation works in the Madras Presidency in 1882-83. The statements embrace, as will be gathered from remarks already made, four classes of works, viz. :—(1) Productive public works for which capital and revenue accounts are kept. These are five in number affecting six districts, viz., Godavery, Kistna, Tanjore, Trichinopoly, Nellore and Tinnevelly. (2) Irrigation works for which capital and revenue accounts are kept. These are four in number affecting three districts, viz., North Arcot, Chingleput and South Arcot. (3) Irrigation works for which a continuous record is maintained. These are 59 in number and are distributed over nine districts, viz., Vizagapatam, Kurnool, Chingleput, North Arcot, South Arcot, Tanjore, Tinnevelly, Salem and Coimbatore. (4) Irrigation works for which capital and revenue accounts are not kept and which are accounted for to Government not individually but collectively by districts. This fourth class is subdivided into Imperial and Minor, the former embracing all works irrigating acres 200 and over, the latter all works irrigating less than 200 acres. There are 2,872 "Imperial" works and 28,776 "Minor" works distributed as at foot.[18] In the abstracts works under Classes I and II are separately accounted for, works under Classes III and IV, for which detailed accounts have been already submitted to Government in the Public Works Department, are not separately shown, those under Class IV being merely divided into "Imperial" and "Minor." But Classes II and III are grouped by districts in the second and third statements.

574. The irrigable area under all classes of works is according to these statistics, acres 5,055,111 : of this acres 4,604,402 or 91 per cent. are occupied and acres 4,372,347 or 86 per cent. are effectively irrigated for one crop, while acres 868,603 or 17 per cent. are effectively irrigated for a second crop also. The area commanded by works of Class I is acres 2,030,517 or 40 per cent. of the total irrigable area ; that under works of Class II is acres 100,378 or 2 per cent. ; that under Class III works is acres 357,256 or 7 per cent., while under the works of Class IV there are acres 2,566,960 or 51 per cent., that is, more than half of the whole irrigable area. Of the 2,566,960 acres commanded by works of Class IV, acres 1,237,548 or 49 per cent. fall under "Imperial" and the remainder acres 1,329,412 or 51 per cent. under "Minor" works. The "Imperial" works are

by reports on Pennair, Pelandoray, Palaur and Shreeveicoontam anicuts, and the Chembrambaukum tank, in 1883 by the report on the Cauvery upper anicut, and in 1884 by that on the Madras water works and irrigation scheme. With this last report the revenue record of all works for which capital and revenue accounts are kept was brought up to date from the first beginning of the works. In 1883 an enquiry having the same object of distinguishing and showing separately in the public accounts the share of the assessment of irrigated lands which were respectively due to land and water was commenced in reference to what are known as Class III works, that is, works for which capital and revenue accounts are not kept, but for which individually a continuous revenue record is maintained. In 1884 the revenue record of all such works had been brought up to date except in the case of the Lower Coleroon and the Vellaur anicuts, the accounts of which were still under preparation. In 1882-83 the enquiry was extended to all the irrigation works in the Presidency, and now a yearly return is submitted to Government in which the shares of the revenue derived from irrigated lands that are due respectively to land and water are distinguished and separately shown. The figures thus worked out are largely actual. In tracts like the Kistna and Godavery deltas, where the assessments of irrigated lands are made up of the assessment of the lands considered as dry with the addition of a separate water-rate, and in all districts that have been re-settled by the Settlement Department wherein the assessments of the same class and sort of dry lands can be at once determined, the figures are actual. In other cases they are approximations based chiefly on the application of average dry rates to wet areas, the product representing the land assessment proper and the balance of the wet assessment the share of it that is due to irrigation.

[18] CLASS IV WORKS DIVIDED INTO IMPERIAL AND MINOR.

Districts.	Imperial.	Minor.	Districts.	Imperial.	Minor.
Anantapore	101	1,495	Kurnool	46	671
Arcot, North	171	3,906	Madura	207	1,911
Arcot, South	246	2,849	Nellore	209	563
Bellary	131	898	Salem	78	3,194
Chingleput	545	2,090	Tanjore	52	607
Coimbatore	69	242	Tinnevelly	174	1,739
Cuddapah	156	2,950	Trichinopoly	148	1,134
Ganjam	215	2,654	Vizagapatam	24	420
Godavery	110	1,205			
Kistna	190	248	Total ...	2,872	28,776

controlled by the Public Works Department, the "Minor" are managed in the Revenue Department. Of the occupied area there are effectively irrigated under Class I works acres 1,741,441 or 33 per cent. for one crop and acres 155,878 or 3 per cent. for a second crop; these together, acres 1,897,319, amount to 36 per cent. of the total effective irrigation under all sources. Under Class II works the effective irrigation for single and double crop is acres 116,755 or 2 per cent.; under works of Class III the area is acres 447,553 or 9 per cent., and under works of Class IV the area effectively irrigated is 2,779,323 acres or 53 per cent. of the total effective irrigation of the year. These figures abundantly show the vast importance to the public interests and public revenue of the works included in Class IV.

575. The total revenue—land assessment and water charge—dependent on all classes of works is Rupees 2,15,26,810; of this Rupees 56,24,002 or 26 per cent. represent land revenue proper, and Rupees 159,02,808 or 74 per cent. the revenue due to irrigation. About three-fourths of the total revenue dependent on works of irrigation is thus solely due to irrigation.

576. Of the total revenue, Rupees 83,94,168 or 39 per cent. are dependent on works of Class I, Rupees 4,00,693 or 2 per cent. on works of Class II, Rupees 22,91,417 or 11 per cent. on works of Class III, and Rupees 104,40,352 or 48 per cent. on works of Class IV. The revenue Rupees 83,94,168 dependent on Class I works is composed of Rupees 23,26,315 or 28 per cent. land revenue proper, and Rupees 60,67,853 or 72 per cent. revenue due to irrigation. The revenue Rupees 4,00,693 under Class II works embraces Rupees 1,01,106 or 25 per cent. of land revenue proper, and Rupees 2,99,587 or 75 per cent. of revenue due to irrigation. The revenue Rupees 22,91,417 under Class III works comprises Rupees 5,27,391 or 23 per cent. of land revenue proper, and Rupees 17,64,206 or 77 per cent. of revenue due to irrigation, while the revenue dependent on works of Class IV comprises Rupees 26,69,190 or 26 per cent. of land revenue proper, and Rupees 77,71,342 or 74 per cent. of revenue due to irrigation. Together with area unoccupied, the annual loss of revenue for remissions under Class IV works, which is by far the most numerous class of works in the Presidency, may be reckoned at about 16½ lakhs of rupees, as the figures at foot will show.[19]

577. The ensuing statistics are those furnished by the Public Works Department. In the first foot-note of this article the financial position of each of the Productive Public Works in operation up to the end of 1882-83 was given. The statement below [20] shows the financial position of each of the works for which capital and revenue accounts are kept, but which are not classed as Productive up to the end of 1882-83. The next statement [21] shows the financial position of all imperial works for which capital and revenue accounts are kept, from the years 1879-80 to 1882-83. The very large decrease in the percentage of net revenue on capital outlay in 1882-83 was entirely due to the purchase by Government in that year of the Kurnool Canal from the late Madras Irrigation and Canal Company, and to its classification as a Productive Public Work.

578. In the detailed notices of works above were given the figures of irrigated area and irrigation revenue of each of the works for which capital and revenue accounts are kept for 1882-83, the figures for each of the works for which a continuous record of expenditure is kept individually, and a statement by districts

[19] LOSSES BY REMISSIONS, &c.

—	Area unoccupied.	Three-fourths of the average assessments.	Actual remissions.	Total.
	ACS.	RS.	RS.	RS.
Imperial	136,280	4,08,840	4,21,645	8,30,485
Minor	69,712	2,09,136	6,32,456	8,41,592
Total ...	205,992	6,17,976	10,54,101	16,72,077

showing the irrigated area and irrigation revenue of all the remaining works; the figures in each case being those given by the Public Works Department. The general statement below [22] shows the total irrigated area of first crop and total revenue derived from irrigation, for each class of works, during the year 1882-83, the latest year for which the information is available.

579. The incidence of irrigation revenue per acre for each class of works,

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[20] STATEMENT OF FINANCIAL RESULTS OF IRRIGATION WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT NOT CLASSED AS PRODUCTIVE, UP TO END OF 1882-83.

Systems.	Total estimate including in-direct charges.	Total outlay to end of 1882-83.	Total revenue due to works to end of 1882-83.	Charges to end of 1882-83.			Total deficit after payment of all charges.	Percentage of deficit on capital outlay.
				Working expenses.	Interest.	Total.		
1	2	3	4	5	6	7	8	9
PUBLIC WORKS NOT CLASSED AS PRODUCTIVE.								
Imperial.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Chembrambaukum Tank	7,24,648	7,36,589	2,95,835	30,163	2,86,128	3,16,291	20,456	2·78
Palaur Anicut System	19,93,893	16,80,965	13,23,351	7,41,596	13,71,171	21,12,767	7,89,416	46·96
Pelandoray do.	4,48,246	3,87,028	23,767	2,19,635	99,205	3,18,840	2,95,073	76·24
Total Imperial ...	31,66,787	28,04,582	16,42,953	9,91,394	17,56,504	27,47,898	11,04,945	39·40
Provincial.								
Buckingham Canal	92,91,954	53,74,499	18,42,232	13,13,810	18,90,504	32,04,314	13,62,082	25·34
Madras Water-supply and Irrigation Extension Project	18,25,615	17,09,997	1,21,628	1,27,480	8,40,719	9,68,199	8,46,571	49·50
Total Provincial ...	1,11,17,569	70,84,496	19,63,860	14,41,290	27,31,223	41,72,513	22,08,653	31·17
Grand Total ...	1,42,84,356	98,89,078	36,06,813	24,32,684	44,87,727	69,20,411	33,13,598	33·50

[21] FINANCIAL POSITION OF IMPERIAL WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.

—	Capital expenditure (direct and indirect) to end of year.			Revenue (direct and indirect).	Maintenance charges (direct and indirect).	Net revenue.	Percentage of net revenue or capital outlay to end of year.
	Productive Public Works.	Public Works for which capital and revenue accounts are kept.	Total.				
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1879-80	2,04,42,429	23,73,646	2,28,16,075	38,07,921	11,12,151	26,95,770	11·81
1880-81	2,07,57,153	28,38,935	2,35,96,088	41,05,459	13,99,482	27,05,977	11·47
1881-82	2,09,95,698	29,24,961	2,39,20,659	36,30,105	11,55,884	24,74,211	10·34
1882-83	3,91,03,451	28,04,582	4,19,08,033	35,02,255	9,11,729	25,90,526	6·18

[22] TOTAL IRRIGATED AREA AND TOTAL REVENUE DERIVED FROM IRRIGATION.

—	Area.	Revenue.
	ACRES.	RS.
Works for which Capital and Revenue Accounts are kept—		
I. Productive Public Works	1,756,344	57,59,623
II. Works not classed as Productive	89,796	2,95,357
Works for which neither Capital nor Revenue Accounts are kept—		
III. Works for which a continuous record of expenditure is kept individually ...	342,684	16,88,985
Works for which a continuous record of expenditure is kept collectively. { IV. "Imperial" Works	1,028,134	33,95,784
{ V. "Minor" Works	1,170,185	33,21,457
Total ...	4,387,116	1,44,61,206

or deduced from the same accounts, is as at foot.[23] The incidence of irrigation revenue per acre on the works of Classes I and II, and on the more important works of Class III is similarly shown in the next table.[24] From the statement it will be noticed that the irrigation under the Tambrapurny river above the Shreeveicoontam anicut, under the Shreeveicoontam anicut, and on the Bhawany and Amravatty rivers, is proportionately more valuable than that on the other systems.

580. The following statement [25] exhibits the capital expenditure per acre irrigated from the commencement of the works up to the end of 1882-83, and the maintenance charges debited to revenue during the year 1882-83, for all works for which capital and revenue accounts are kept. From the statement it will be seen that the capital cost of the Kurnool Canal, in proportion to its irrigated area, far exceeds that of any other work, while the capital expenditure on the Pelandoray

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[23] INCIDENCE OF IRRIGATION REVENUE UNDER EACH CLASS OF WORK.

	Average irrigation revenue per acre.
Works for which Capital and Revenue Accounts are kept—	
I. Productive Public Works ...	3·27
II. Public Works not classed as Productive ...	3·28
Works for which neither Capital nor Revenue Accounts are kept—	
III. Works for which a continuous record of expenditure is maintained individually ...	4·93
IV. "Imperial" Works ...	3·30
V. "Minor" Works ...	2·83

[24] THE SAME UNDER DIFFERENT WORKS.

—	Area irrigated.	Average irrigation revenue per acre.
Productive Public Works—		
Godavery Delta ...	504,213	3·09
Kistna do. ...	261,158	3·19
Pennair Anicut ...	63,653	3·69
Kurnool Canal ...	14,903	3·32
Cauvery Delta ...	892,871	3·25
Shreeveicoontam Anicut ...	19,546	8·79
Total ...	1,756,344	...
Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—		
Chembrambaukum Tank ...	12,763	3·78
Palaur Anicut ...	66,212	3·28
Pelandoray Anicut ...	3,386	2·54
Madras Water-supply and Irrigation Extension Project ...	7,435	2·84
Works for which individually a continuous record of expenditure is kept—		
Lower Coleroon Anicut ...	105,599	2·94
Tambrapurny River above Shreeveicoontam Anicut ...	53,310	11·21
Bhawany River ...	28,529	7·04
Amravatty River ...	25,645	5·43

[25] STATEMENT SHOWING THE AVERAGE COST OF CONSTRUCTION AND MAINTENANCE OF WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.

—	Average expenditure per acre.	
	Capital account to end of 1882-83.	Revenue account during 1882-83.
Productive Public Works—		
Godavery Delta ...	18·23	0·64
Kistna do. ...	22·50	1·06
Pennair Anicut ...	22·45	0·72
Kurnool Canal ...	1189·36	8·95
Cauvery Delta ...	1·17	0·35
Shreeveicoontam Anicut ...	63·34	1·48
Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—		
Chembrambaukum Tank ...	48·92	0·32
Palaur Anicut ...	24·94	0·63
Pelandoray Anicut ...	104·41	13·79
Madras Water-supply and Irrigation Extension Project ...	198·11	2·20

anicut and Madras water-supply works is disproportionately high as compared with the remaining works. With the exception of the expenditure incurred on repairs to the Pelandoray anicut during 1882-83, when the breached portions of the anicut was restored, the year 1882-83 approximately represents the normal cost of working expenses of these systems, and the statement therefore shows that the only work on which the cost of maintenance is abnormally high is the Kurnool Canal. Hitherto, also owing to the serious accidents the works have received, the maintenance charges of the Pelandoray anicut have been abnormally high, and have averaged Rupees 9·74 per acre from the construction of the works in 1875-76 up to the end of 1882-83. In the year 1899, when the full area of irrigation will be in operation, it is estimated that the maintenance charges of this system will be reduced to about 12 annas per acre.

PUBLIC WORKS—RAILWAYS.

581. INTRODUCTION.—The policy with regard to railways in India has gone through various phases.[1 & 2] It was inaugurated under the advice of Lord Dalhousie with the concurrence of the Home authorities by the employment of companies under a system of guarantee. All efforts to raise money without a guarantee failed,

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[1] SKETCH HISTORY OF RAILWAYS IN MADRAS PRESIDENCY.—*The first Company.*—On the 8th July 1845, a Madras Railway Company was formed in London. The first general meeting of the shareholders took place in February 1846. The object of the promoters of the company was the construction of a railway from Madras to Arcot, otherwise known as Wallajahnugger. An estimate was framed, and a general scheme was prepared, which in 1847 was submitted to the judgment of Mr. Sims, C.E., the first Director of the Indian Government Railway department. (2) *Its dissolution and reconstruction.*—The company being unable to obtain any pecuniary concession from the Court of Directors was shortly after dissolved, and it was not until after experimental lines had been sanctioned in Bengal and Bombay, with a guarantee of interest on the capital paid up, that the subject was revived. In 1849, Mr. Arbuthnot, as chairman of two meetings held in London regarding a railway in Madras, addressed the Court of Directors upon the subject, and subsequently Colonel Sim by letter asked for an assurance from the Court of Directors that they were prepared to grant the same terms and encouragement to Madras as they had to Bengal and Bombay. Simultaneously with this movement, the residents in Madras held a public meeting, the Governor being in the chair, for the purpose of preparing a scheme for a joint-stock company to make the line above mentioned. The new company was formed, and finally the Directors passed the following resolution :—"Resolved that the Court, continuing to entertain the opinion that it would be "just and expedient to extend the experimental introduction of railways in India to the Madras Presidency, recommend "that terms corresponding with those which have been offered to the East Indian and Great Indian Peninsula "Railway Companies, be granted to the Madras Railway Company in respect of a capital of £600,000." This resolution was submitted to the Board of Control for the affairs of India on the 1st June 1849, but it was not till the 17th August 1849 that a reply was sent. The terms of the reply were decidedly opposed to the wishes of the Court of Directors; and sanction to the proposal was refused "because the conditions on which experimental lines are being made "in Bengal and Bombay place the whole risk of the undertaking on Government; and because, as regards a railway in "Madras, there is an entire absence of information, whether the undertaking combines the great political and commercial "objects, which a careful scrutiny of the ground itself, and of the reports by a competent officer of Government, has "proved that the Bengal and Bombay schemes will do." (3) *Correspondence regarding the experimental Arcot line.*—On the 30th August 1849, the Directors of the East India Company again urged the claims of Madras. They reminded the Board of Control that a survey had been made of a line from Madras to Wallajahnugger, and that Mr. Sims had reported favorably on the documents submitted to him; that knowing that a railway from Madras would, as a matter of necessity, have a direction westward, the Directors did not propose to approve of any specific line, but merely to sanction the undertaking generally leaving the exact alignment, position of termini, and all details to the local Government, who would, if requisite, have further exact surveys made. The Board, however, maintained their opinion; and in a letter dated 17th September 1849 declined, for the reasons previously explained, to allow an extension of guarantee to capital for a railroad in Madras. On this refusal being communicated to the committee of the Madras Railway Company, that body drew up an able document, containing all the reasons that could be urged in favour of the project. The Court of Directors in forwarding this letter again pressed the subject upon the consideration of the Board of Control. But as no additional reasons were now brought forward, the Board in reply merely referred to their previous letter. The question was thus temporarily laid aside. (4) *Major Pears' preliminary reports.*—The next thing that occurred was the appointment of Major Pears, of the Madras Engineers, to make a report on railways in Madras, not with reference to an experimental line only, but to the ulterior destination of railways, which would facilitate communication for political and commercial purposes, and effect more ready intercourse with other Presidencies. From much careful investigation he came to the conclusion that one line should run from Madras to the Malabar coast viâ Vaniyambaudy, Salem, and Palghaut, the solitary gap in the Western Ghauts; and that another should climb the Eastern Ghauts, and should be carried viâ Bangalore to Bellary, and from thence to Poona and Bombay. A survey of the country with levels was then undertaken; and in December 1851, Major Pears submitted a definite proposal with plans and estimates for a trunk railway from Madras, in a direction nearly due west, to an unimportant place called Menil. Beyond that point, which he considered as fixed, the course of the line was to be guided by the nature of the country. (5) *His first reports.*—As regards the north-west line, it is evident that, in mounting from the coast to such a height as the table-land of Central India, two methods might be adopted. A line might gradually rise from the sea so as to lift the railway to the level of the crest of the ghaut, leaving the steep incline short or the railway might be constructed with favourable gradients to the base of the hills, leaving them to be climbed by an abrupt slope. The latter course was, however, clearly preferable, both on account of first cost of construction and of subsequent working. Examining the ghauts with these views, Major Pears found that there was a pass, nearly in a direct line between Madras and Bangalore, near Pulmanair, which could be approached along a ridge forming the watershed between the Payaur and Poiney rivers, so as to leave a total rise of 400 feet only to be overcome at the ghauts. At Pulmanair, a railway could be formed up the ghauts, with a maximum gradient of 1 in 37, and with no curves sharper than 1 mile radius. Under these circumstances, and being apparently mainly influenced by facilities in construction and subsequent economy in working, Major Pears recommended that the railway should be carried away from Arcot and Vellore, and other centres of population; upon a line nevertheless that was eminently favourable in a purely engineering point of view, through Menil and Sholinghur to Pulmanair,

and no other means was then available for carrying out even the limited extent of railways which was required as a commencement. A change in this policy was made in 1870, when a system of State lines was introduced during the Viceroyalty of Lord Lawrence. The capital was for the most part raised by Government loans at rates of interest varying from 3 to $4\frac{3}{4}$ per cent., and the work of construction and management has been carried on by Government officers. Included among State lines are certain which are termed "Provincial," being undertaken by local Governments under arrangements with the Supreme Government, the revenue of the provinces being primarily responsible for the interest on the borrowed capital. The next development of railway policy has been a return to the agency of companies, who, either by a modified guarantee or by arrangements involving no ultimate pecuniary assistance, have undertaken railways on their own merits in the hope of earning a fair rate of interest on the money invested in them. In these cases interest is advanced either by the Government or out of capital during construction. The Government reserve the option of purchasing at certain periods and at the end of a term of 99 years, the railways become the property of the State, the rolling-stock, &c., being paid for at a valuation. The scheme for developing the rapid extension of railways in India, by enlisting private enterprise in their construction, differs from the old guarantee system, which was condemned by Lord

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and so on viâ Bangalore to Bellary and Bombay, with a branch viâ Amboor to Vaniyambaudy, whence it would proceed to the west coast. He thus sums up the advantage of the line :—"The character of the country is most favourable, "there are no costly or difficult works—the greater part of the land is of small value, much of it of no value at all—"while the line would not only monopolize the entire traffic proper to the direction it takes, but from its great superi-"ority over other existing modes of transport, would attract largely from all directions. Under any circumstances, "therefore, the line to Menil appears the best for a trunk line." (6) *Sir J. Peter Grant's views.*—On the transmission of Major Pears' reports to the Supreme Government, Mr. John Peter Grant, the then Home Secretary to the Government of India, wrote, in laying them before Government, a brief but able digest of the various schemes. The Madras Government had approved, he remarked, of both lines selected by Major Pears, viz., one direct to Pulmanair, and viâ Bangalore to Bellary, and another from a point on the first line about 60 miles from Madras viâ Vaniyambaudy to the Malabar Coast; but had recommended that the first-named line should have the precedence in point of execution. Now the trade from Bellary to Madras was estimated at $2\frac{1}{2}$ lakhs annually, but that from Cuddapah to Madras at $25\frac{1}{2}$ lakhs. The distance by road from Madras to Bellary by Cuddapah is 316 miles; but by Bangalore it would be about 100 miles more. Cuddapah is 400 feet above the sea, Bellary 1,600, Pulmanair 2,100, and Bangalore 3,000 feet. It was, therefore, evident that a railway from Madras to Bellary, viâ Bangalore, would be nearly 100 miles longer than by a direct road, would mount at least 500 feet, only to fall again, while it would miss the entire existing trade from Cuddapah, estimated to be eight times greater than that from Bellary. Consequently Mr. Grant strongly condemned the proposed direction by Pulmanair, until a survey of the Cuddapah district had been made. The country between Madras and Cuddapah was known to be difficult for a railway, but was not known to be impracticable; any unless that was ascertained it was argued that a line in a north-westerly direction through Cuddapah was, without doubt, by far the best. Bangalore could, moreover, be reached with facility from the south-western line, by the remarkably easy pass up the ghauts to the Mysore table-land at Cooppam, not far from Vaniyambaudy, which Major Pears had lately discovered. Finally, Mr. Grant sums up his opinions of the requirements of the Madras Presidency, as regards railways, in the following way :—A line from Madras to Cuddapah and Bellary; a line from Madras by Vaniyambaudy and Salem to the west coast of India; a branch from Vaniyambaudy to Bangalore; and a branch from Coimbatore to the foot of the Neilgherry Hills. As regards the first section of the line to Menil, his sentiments were decided. If there is not to be a railway to Pulmanair, then a railway to Menil is unquestionably a bad plan, as it takes the rail quite off the existing line of the south-west traffic, and away from the large towns on that line. (7) *First line made.*—Sir Peter Grant's opinion, however, did not receive attention and an Agent from the Madras Railway Company having reached Madras in January 1853, and it being desirable to decide something at once so that commencement might be made, the Government of India directed in a letter, dated 4th March 1853, that a line from Madras as far as Menil be at once constructed, as the best line for an extension of the railway system in the Madras Presidency, in any direction that further surveys would determine to be desirable. The first portion of the line sanctioned was from Madras to Menil, a distance of 50 miles, which was authorized as an experiment, and as a line that would be common to all railways in Madras in whatever way the extensions might be directed. The first sod was turned on the 9th of June 1853; but before much progress had been made the Court of Directors determined upon carrying out a comprehensive scheme of railways in India in furtherance of which a line from Madras to the western coast was authorized, and the contract was signed in December 1855. (8) *Contracts with Madras Railway.*—The first contract with the Madras Railway Company is dated 22nd December 1852, and provided for the construction of an experimental line of railway from Madras towards the west coast. A second contract, dated 19th December 1855, provided for the extension of the line to the west coast with branches to Bangalore and to the foot of the hills towards Ootacamund. A further contract, dated 13th August 1858, provided for the construction of a line commencing at or near Madras to proceed in a north-westerly direction to or near Bellary with the object of joining the line of railway then in progress from Bombay towards Madras. By an indenture made on the 2nd January 1871, the several undertakings of the company were consolidated into one undertaking. (9) *Contract with Southern India Railway.*—The first contract relating to the present South Indian Railway was that dated 1st September 1858 with the Great Southern of India Railway Company. It provided for the construction of a line of railway from Negapatam to a point at or near Trichinopoly. A second contract, dated 21st April 1864, provided for the extension of this line from Trichinopoly to Erode with a view to join the south-west line of the Madras Railway. In 1867 a contract was entered into between the Secretary of State and the Indian Tramway Company for the construction of a line on the 3 feet 6 inches gauge between Arconum and Conjeeveram, and by a deed of surrender, dated March 1870, this line was made over to the Carnatic Railway Company who undertook to work it and to make such extensions as the Government might think necessary, a further contract of the same date providing for the alteration of the gauge from 3 feet 6 inches to metre gauge and to extend the line from Conjeeveram to Cuddalore or such other place as might be determined on. Under a contract, dated 12th March 1872, the Great Southern of India Railway Company were permitted to extend their line from Trichinopoly to Tuticorin, and by a contract, dated 16th December 1873, the Great Southern of India Company was amalgamated with the Carnatic Railway Company under the title of South Indian Railway Company and the extension of the line from Tanjore to Madras was provided for. (10) *Branches recently opened.*—The branch Railway from Villoopooram to join the Pondicherry Railway at the Jinjee river was sanctioned in 1879, and the Arconum branch from Chingleput to connect the South Indian Railway with the Madras Railway having been originally commenced with a view to provide employment for famine labour was ultimately sanctioned in 1879.

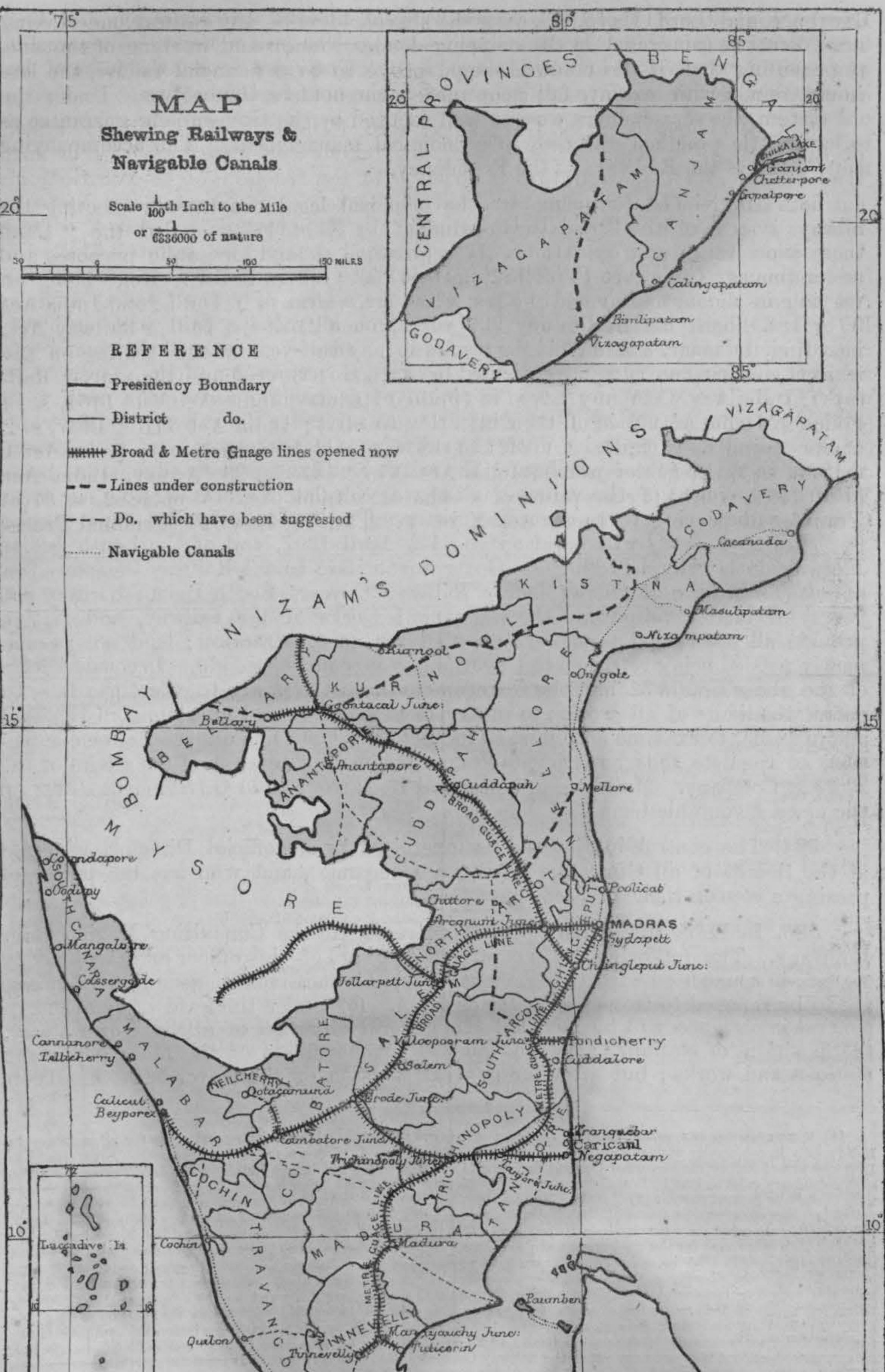
Lawrence and Lord Mayo, in giving the shareholders of any railway undertaking more direct responsibility in the economical construction and working of the line, by providing that, if the concern should prove to be a financial failure, the loss should, to a certain extent, fall upon those shareholders themselves. Under the old system, the shareholders were so well secured by the Government guarantee as to have little practical interest in economical management. The accompanying map [3] shows the Railways of the Presidency.

582. LAW.—The following are the principal legal enactments affecting the railway system of the Presidency :—India Act X of 1870, called the "Land Acquisition Act," being an Act for the acquisition of land for public purposes and for companies ; India Act IV of 1879, called the "Indian Railway Act," being an Act to consolidate and amend the law relating to railways in India ; and India Act IV of 1883, being an Act to amend sections 5 and 21 of the Indian Railway Act, regarding the opening and closing of railways. Other enactments bearing on the subject are—Statute 42 and 43 Vic., c. 41, ss. 1–3 (Indian Guaranteed Railways) ; India Act XXIV of 1859, s. 14 (Police, Madras) ; India Act V of 1861, s. 14 (Police) ; India Act X of 1866, s. 213 (Companies) ; India Act III of 1867, s. 2 (Public gambling) ; India Act VIII of 1875, s. 6 (Inland customs) ; India Act I of 1876, ss. 6, 12 (Telegraphs) ; India Act XI of 1878, s. 28 (Arms) ; India Act VI of 1879, s. 3(b) (Preservation of elephants) ; India Act IV of 1882, s. 67(c) (Transfer of property) ; India Act X of 1882, ss. 72, 184, 329 (Criminal Proce-

[2] LIST OF RAILWAYS, THROUGHOUT INDIA, INCLUDING BRANCHES.

Names.	Miles open in 1883-84.	Names.	Miles open in 1883-84.
State Railways (Imperial).		*State Railways (Provincial)—(Continued).*	
Punjaub Northern	446	British Burmah	254
Indus Valley and Candahar	652½	Umritsar-Pathauncote	51
Rajpootana-Malwah	1,260¾	Roopar-Nalagarh	48
Scinde	74¾	Kokilamookh	...
Jhansee-Mannikpore	...		
Wurdah Coal	46½	Total ...	1,273¾
Patry	22½		
Dhond-Manmad	145¾	*Guaranteed Railways.*	
Bellary-Kistna	...	East Indian	1,509
Cuddapah-Nellore	...		
Total ...	2,648¾	Eastern Bengal	159¾
		Oudh and Rohilcund	548¼
State Railways (in Native States).		Scinde, Punjaub and Delhi	686½
		Madras	860¾
Bhopaul	11½	South Indian	654½
Bhownugger-Gondaul	193	Great Indian Peninsula	1,288
The Guicowar of Baroda's	58¾	Bombay, Baroda and Central India	438½
Jodhpore	18½		
Berar	14	Total ...	4,636¼
The Nizam's	121		
Mysore	87	*Assisted Railways.*	
Rajpoora-Puttiaula	...	Bengal Central	114
Wudwan-Rajkot	...	Bengal and North-Western	...
Total ...	503¾	Deoghar	5½
		Serafuli-Tarakessur	...
State Railways (Provincial).		Burdwan-Kutwa	...
		Assam	38½
Calcutta and South-Eastern	55½	Darjeeling-Himalayan	50
Nalhaty	27¼	Rohilcund-Kumaon	...
Northern Bengal	289	Southern Mahratta	...
Tirhoot	193	West of India Portuguese	...
Patna-Gya	57	Pondicherry	7¾
Dacca-Mymensingh	...	Thatone	...
Hathras Muttra-Achnera	52		
Cawnpore-Furruckabad	86	Total ...	215¾
Cawnpore-Calpee	...		
Dildarnagar-Ghazeepore	12	Grand Total of all Railways open for Traffic to end of 1883-84	10,787¼*
Bareilly-Pilibhit	...		
Nagpore-Chatisgurh	149		

[3] SPELLINGS AUTHORIZED BY GOVERNMENT OCCURRING IN MAP SHOWING RAILWAYS AND NAVIGABLE CANALS.*—Anantapur; Arcot, North; Arcot, South; Arkonum; Bellary; Beypore; Bimlipatam; Calicut; Calingapatam; Canara, South; Cannanore; Chatrapur; Chingleput; Chittoor; Cocanada; Cochin; Coimbatore; Coondapoor; Cuddalore; Cuddapah; Erode; Ganjam; Godávari; Gopálpur; Guntakal; Jolárpet; Kásaragód; Kistna; Kurnool; Madras; Madura; Malabar; Mangalore; Maniyáchi; Masulipatam; Negapatam; Nellore; Nílgiri; Ongole; Ootacamund; Pámbau; Perambúr; Pondicherry; Pulicat; Quilon; Saidápet; Salem; Tanjore; Tellicherry; Tinnevelly; Tranquebar; Travancore; Trichinopoly; Trivandrum; Tuticorin; Udipi; Villupuram; Vizagapatam.


MAP
Shewing Railways & Navigable Canals
Scale 1/100th Inch to the Mile
or 1/6336000 of nature
REFERENCE
Presidency Boundary
District do.
Broad & Metre Guage lines opened now
Lines under construction
Do. which have been suggested
Navigable Canals
CENTRAL PROVINCES
BENGAL
VIZAGAPATAM
GANJAM
GODAVERY
Chilka Lake
Ganjam
Chetterpore
Gopalpore
Calingapatam
Bimlipatam
Vizagapatam
NIZAM'S DOMINIONS
KISTNA
Cocanada
Masulipatam
Nizampatam
KURNOOL
Kurnool
Ongole
NELLORE
Nellore
BOMBAY
BELLARY
Bellary
Guntacal Junc.
ANANTAPORE
Anantapore
CUDDAPAH
Cuddapah
BROAD GUAGE LINE
MYSORE
Coondapore
Oodipay
SOUTH CANARA
Mangalore
Cassergode
Cannanore
Tellicherry
Calicut
Beypore
MALABAR
NEILGHERRY
Ootacamund
Chittore
NORTH ARCOT
Arconum Junc.
Pulicat
MADRAS
Sydapett
Chingleput Junc.
CHINGLEPUT
Jollarpett Junc.
SALEM
Salem
Villoopooram Junc.
SOUTH ARCOT
Pondicherry
Cuddalore
METRE GUAGE LINE
COIMBATORE
Coimbatore Junc.
Erode Junc.
TRICHINOPOLY
Trichinopoly Junc.
TANJORE
Tanjore Junc.
Tranquebar
Carical
Negapatam
COCHIN
Cochin
TRAVANCORE
MADURA
Madura
Paumben
TINNEVELLY
Tinnevelly
Maniyauchy Junc.
Tuticorin
Quilon
Trivandrum
Cape Comorin
CEYLON
Kandy
Laccadive Is.
Maldive Is.
Scale 1 Inch = 320 Miles = 1/20275200

dure); India Act XIV of 1882, ss. 266(b), expl. 268 (Civil Procedure); and Mad. Act I of 1884 (Madras City Municipality Act). The law in detail is shown under the head of "Railway" in Vol. II, App. LIV. The rules having the force of law in connection with railways are mentioned in the next foot-note.[4]

583. RELATIONS BETWEEN GOVERNMENT AND RAILWAYS.—The railway system of the Madras Presidency is at present exclusively the guarantee system mentioned above. The design, that is to say, and construction of the railroads are entrusted to joint-stock companies, and the Government guarantees interest on moneys duly raised and paid to Government by these companies, while it controls their expenditure and operations. The principal concessions granted in Madras under this agreement are the following:—(*a*) The Government guarantee interest varying in amount from 4½ to 5 per cent. for a term of years (Madras Railway 99 years, South Indian Railway 999 years) on all moneys paid with authority into their treasury, and should the profits in any half-year exceed the guaranteed interest, the surplus is equally divided between Government and the shareholders. (*b*) The Railway Company have the option of demanding repayment, upon their giving six months' notice of their intention to surrender the railway, of the whole of the capital duly expended upon the railway. On the other hand the Government have the option of purchasing the railway at fixed periods (due notice being given) on payment of the value of all shares calculated according to their mean market-value during three preceding years. The first opportunity of purchasing the Madras Railway will occur on the 1st April 1907, and of the South Indian Railway on 1st March 1890. (*c*) Government lease to the Railway Company free of cost for a term of years (Madras Railway 99 years, South Indian Railway 999 years) all land required for the permanent works of the railway, and further provide all other land temporarily needed for its construction; land not permanently needed being returned to Government as soon as possible. In consideration of the above grants of aid, the Government have the power to select the line, to define the limits of all works, to supervise expenditure and operations in England and in India, to examine accounts, to inspect works and line under or after completion, to regulate tolls and time-tables, and generally to control the affairs of the Railway Company. Mails are to be carried free; troops and Government stores on the usual favourable terms.

584. The control in England is exercised by an official Director, who sits at the Boards of all Guaranteed Railway Companies, and who has the power of passing a veto on their proceedings.

585. In India the supervision is entrusted to the Consulting Engineer for Railways. The following rules control the powers of this officer and the Railway Agents in connection with Government:—(*a*) All questions of general importance are to be referred to Government for decision. (*b*) Under the head of questions of general importance will be included the general direction of all lines of railway, the position of stations, and the general arrangements of the more important stations and works; but after the general sanction of the Government has been

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[4] RULES HAVING THE FORCE OF LAW RELATING TO RAILWAYS.—*General Rules*—General rules for all railways in India made in conformity with section 8 of the Indian Railway Act, 1879, were framed at the railway conference in 1880 and sanctioned by the Governor-General in Council in 1880, and each railway administration is authorized to make such subsidiary rules as may be found necessary or expedient provided that no such subsidiary rule shall be inconsistent with the above general rules. (2) *Risk Notes.*— In 1880, the Governor-General in Council approved for use on certain railways forms of agreement termed "Risk Notes" purporting to limit under section 10 of Indian Railway Act, 1879, the obligation imposed on a carrier by railway by the Indian Contract Act, 1874, sections 151–161. There are seven kinds of risk notes used for the conveyance of goods, &c. They are for goods in bad condition; goods sent at special reduced rates; goods sent in open trucks at sender's request instead of waiting for covered ones; and consignment of small value not exceeding Rs. 50 sent at special reduced rates. (In the above four classes the consignor does not hold the company responsible for the condition in which the goods are delivered to the consignee.) In booking uninsured horses of declared value over Rs. 500, the company is not to be held responsible for any excess over this sum. In booking low-priced horses, mules, ponies, &c., in cattle trucks instead of horse boxes, the company is not responsible for more than Rs. 50 for each animal. In all consignments for which the railway quotes both owner's risk or special reduced rates or ordinary rates, the Railway Company is held free from all responsibility. (3) *Fencing.*—In 1875, the following rules were brought into force under section 52 of the Act. For the purposes of the Act three kinds of fences are to be recognized, viz.: Iron wire fence.—To consist of not less than 4 wires ¼ inch thick, the upper wire to be not less than 3 feet 6 inches above the ground, and to have straining posts every 440 yards with intermediate supports 15 feet apart. Masonry fence.—To be 3½ feet high and 15 inches thick, and if built of rough stone to have a copying laid in mortar. Live vegetable fence.—To be of such strength and dimensions as to render it impossible for cattle to get through or over.

given to any project, all questions of detail can be disposed of within the limits of the original sanction by the Consulting Engineer. (*c*) Matters of routine, payments, acts in accordance with rule, precedent or special agreement duly sanctioned, and undisputed contingent expenditure may be dealt with by the Consulting Engineer without reference to Government. (*d*) Designs, estimates, and indents, whether for work or for establishments for carrying into effect objects already generally sanctioned by Government, may be disposed of finally by the Consulting Engineer. (*e*) The Consulting Engineer may, without reference to Government, reduce the amount of indents, or direct designs or proposed operations to be modified if he thinks it necessary; but the Agent in such cases, if dissatisfied with the decision of the Consulting Engineer, may request that the matter be referred for the final orders of the Government. (*f*) When the sanction of the Consulting Engineer is given to any proposals of the Agent in which both of these officers concur, excepting in the matters of special importance excepted above, the sanction so given will so far as the Government is concerned be considered final. (*g*) The fencing to be inspected half-yearly by an officer of the Consulting Engineer's department, and the police to bring to the notice of the railway authorities any defects in the fencing and to bring to justice all persons injuring such fences.

586. The practical application of the rules just mentioned as regards establishments is thus arranged at present. A half-yearly meeting is held for the authorization of establishment for the ensuing half-year, and the system provides—(1) A normal sanctioned staff as a basis but liable to variation according to circumstances. (2) An annual grant of funds as the limit of expenditure on each head of service. (3) A system of sanction by the Government of India of all variations in the superior staff. (4) A system of half-yearly authorization by the Consulting Engineer of the actual establishment to be employed; this last being limited by the budget grant for each head of service, and the sanction of the Government of India to the superior appointments. At all times, within such restriction as the local Government may impose, the Consulting Engineer may sanction the entertainment of additional establishment actually required for traffic.

587. The powers of sanction of the Consulting Engineer in respect of works are as follow:—Works are thus classified—(*a*) New Works—Capital; (*b*) New Works and Alterations—Revenue; (*c*) Repairs—Revenue. Estimates for new works and alterations (*a*) and (*b*) not exceeding Rupees 1,000 each are submitted for discussion and disposal at periodical official meetings attended by the heads of all departments and the Government officers. Of estimates exceeding Rupees 1,000—those under Rupees 5,000, unless of a special nature, are sanctioned by the Consulting Engineer, a monthly schedule of such sanctions being submitted for the information of Government. Works costing between Rupees 5,000 and Rupees 10,000 are submitted for the sanction of the local Government. Those exceeding Rupees 10,000 are submitted for the sanction of the Government of India. The Engineers of the Railway Company design all works—the Government Engineers have the responsibility of approving both plans and works. Indents for stores may, with the sanction of the local Government or Consulting Engineer concerned, be sent home against the budget provision for all normal requirements. Any abnormal requirement of English stores is submitted to the Government of India for approval.

588. Half-yearly inspections of the state of way, works, and stock of Guaranteed Railways, upon which the certificates attached to the revenue accounts are based, are made by the Consulting Engineer or the deputies, during the two months immediately succeeding the expiration of the half-year to which the account relates.

589. General rules have been prescribed by the Governor-General in Council for inquiring into, and reporting on, serious accidents on railways, whether open for public traffic or under construction. The officer authorized by Government to investigate and report on accidents is called the Government Inspector, and his address and official designation are notified to managers from time to time by local Governments or Administrations or by the Government of India. In the Presidency of Madras, the Consulting Engineer for Railways to the local Government exercises the function of inspecting officer on the Madras Railway, South Indian

Railway, Mysore State Railway, Nizam's State Railway, and all local lines within the Presidency.

590. When a railway or section of a railway is reported ready to be opened for public traffic, a final inspection of it is made by an officer of the Government Consulting Engineer's department for Guaranteed Railways, under rules which have been drawn up for the information and guidance of all concerned; and under section 5 of Act IV of 1883 no railway, or portion, or extension of, or addition to, a railway can be opened for the public conveyance of passengers until the inspecting officer has, after inspection of the railway portion, extension, or addition, as the case may be, reported to the Governor-General in Council that, in his opinion, the opening of the same would not be attended with danger to the public using it.

591. The Guaranteed Railway Companies have the option of varying the actual charges made to the public, both as to rates and fares, within certain maxima which are fixed by the local Government, and which shall be such as to leave a reasonable margin for the exercise of discretion by companies in varying the working rates as circumstances may, in their opinion, require.

592. RAILWAYS CONSTRUCTED.—Two Railway Companies, the Madras and the South Indian (both guaranteed) have their lines almost entirely within the Presidency.

593. The Madras Railway [5] head-quarters are at Madras, and the company's undertaking consists of two main lines. The first main line stretches across the peninsula in a south-westerly direction from Madras to Beypore (406 miles); with branches from Jollarpett to Bangalore (87 miles) and from Pothanore to Mettapolliem, near the foot of the Neilgherry hills, (26 miles). The second main line leaves the first main line at Arconum (43 miles from Madras), and runs in a north-westerly direction to Ryechore (308 miles), where it joins the Great Indian Peninsula Railway from Bombay. It has a branch from Goontacul to Bellary (32 miles). The Madras Railway system thus consists of 861 miles of railway; of which the section between Madras and Arconum (43 miles) is a double line, and the remainder (818 miles) is a single line. The entire system has been constructed on the Indian broad gauge of 5 feet 6 inches. The lists of stations shown in Vol. II, App. LXXV, with distances from Madras will give a view of the system. The embankments on the Madras Railway, except on the double line, are for a single track; but the foundations and superstructure of bridges and viaducts are for a double way, except on the Neilgherry and Bellary branches. The rails vary in weight from 65 to 84 lb., and are laid on iron sleepers except for a few miles on the Western Coast. Rails of 75 lb. weight are now used for renewals. The famine in 1876-77 proved the necessity for heavier engines and longer trains, which resulted in the strengthening of the bridge girders throughout the line and in increasing the length of the platforms. The weight and capacity of the rolling stock has also been increased, and, under orders from the Government of India, the couplings, buffers, and side chains on the rolling stock of this line have been altered to a type generally adopted throughout India, and bolted tires have been or are being substituted for those hitherto in use. An ambulance train for military service has been provided. It consists of two first-class carriages, two brake vans, and thirteen third-class carriages; the latter so constructed that the ordinary seats and partitions can be quickly removed and fitted with end and special doorways to admit of dhoolies being introduced. Three of the carriages will be fitted to provide a dining van, cooking van, and store van. The carriages are used for ordinary traffic, the fittings being stored at the Salt Cotaurs station and can be got ready for military

[5] SKETCH HISTORY OF CONSTRUCTION OF THE MADRAS RAILWAY.—The construction of the Madras Railway was commenced on the 9th June 1853; the first section of the line from Madras to Arcot was opened on the 16th July 1856; and the south-west line from Madras to Beypore was opened throughout on the 12th May 1862. The Bangalore branch was opened on the 1st August 1864, and that to Mettapolliem on the 31st August 1873. Of the north-west line commencing at Arconum, the first section to Nagary was opened on the 4th March 1861, and the line completed to Ryechore on the 15th March 1871. The Bellary branch was also completed in March 1871, with the exception of the bridge over the Hagary river, which was not completed until 1877. The doubling of the line from Madras to Perambore was completed on the 7th February 1874, and thence to Arconum on 28th August 1877. The short branch from Bangalore Pettah to the cantonment, which was originally commenced as a portion of the Mysore State Railway, was handed over to the Madras Railway for construction as a broad-gauge line, and was opened for traffic on the 1st July 1882.

purposes within 48 hours. Electrical intercommunication (Winter's patent) has been established on all trains, both passenger and goods; and sanction has recently been accorded to the introduction of the "block system" with Winter's patent block instruments throughout the line. The clocks on the line at all principal stations are corrected daily by electricity. The number and the situation of the heavy gradients are a prominent feature of the line. On the north-west line there is the Ballipully ghaut, with $\frac{3}{4}$ mile of 1 in 60. On the south-west line, the Salem ghaut, with $1\frac{3}{5}$ miles of 1 in 75; and the Coimbatore ghaut, with $6\frac{1}{4}$ miles of 1 in 62 to 1 in 68. On the Bangalore branch, the Cooppam ghaut, with $5\frac{1}{2}$ miles of 1 in 68 to 1 in 80. In consequence of these gradients, the speed specified in the Transport Regulations for troop trains throughout India is not enforced on the Madras Railway. Coal is seldom used on the locomotives on this line. Patent fuel is used on all passenger trains running between Madras and Jollarpett and Madras and Tripatty. On other sections of the line wood is burnt. The mails and post office officials are carried, free of charge, in vans specially constructed on a type furnished by the Government of India. In 1883-84 there were on the open lines 10,782 employés, of whom 197 were Europeans, 878 East Indians, and 9,707 Natives. This line has a police force of its own, consisting of 8 subordinate officers and 239 constables and men. The volunteers are organized in five companies—two are at Perambore, and one at Pothanore, Salem, and Jollarpett; the total strength being 273. The medical department consists of a medical officer and 18 apothecaries, who are distributed along the principal stations of the line, at each of which a building or a portion of one is set aside as a dispensary. Railway schools have been established at Perambore, Jollarpett, Pothanore, Gooty, and Ryechore, for Europeans and Eurasians. In addition to these the children of the railway employés attend 642 district and local schools, of which more than one-half are situated in or near Madras and Perambore. In the year 1883 the number on the rolls of the railway schools was 167, and on those of the local and district schools 2,352.

594. The capital expenditure on the Madras Railway up to 31st December 1883 was Rupees 11,17,22,586 (£10,241,237). The total capital expenditure including stores up to the same date was Rupees 11,40,25,234 (£10,452,313). The capital expenditure during the year 1883-84 was Rupees 1,78,078. The net profits in the same year were Rupees 25,26,549 (£231,600), giving a dividend at the rate of 2·2 per cent. on the total capital expenditure. The net profits fell short of the guarantee by £292,000. The guaranteed interest from the formation of the company up to 31st December 1883 amounted to £11,289,814, and the net profits for the same period to £4,883,368, leaving a balance of £6,406,446 to be met from the revenues of India, in addition to the expenditure on land and control. Its financial condition, &c., is illustrated by the statements at foot.[6 to 12] The subscribed capital of the Madras Railway Company is made up as under.[13] The whole of the capital is registered in England, no register having been opened in this country.

[6] EARNINGS AND EXPENDITURE OF MADRAS RAILWAY FOR 13 YEARS.

Years.	Miles. open.	Gross earnings.	Expenditure.	Net revenue.	Percentage of expenses to receipts.	Receipts per open mile per week.
		RS.	RS.	RS.		RS.
1871	825	59,90,455	30,71,093	29,19,362	51·27	139·6
1872	832	62,05,653	32,38,962	29,66,691	52·19	142·8
1873	843	68,83,350	39,19,378	29,63,972	56·94	156·8
1874	858	59,06,501	38,19,532	20,86,969	64·67	132·0
1875	858	64,29,753	45,18,602	19,11,151	70·28	143·7
1876	858	71,13,773	45,79,778	25,33,995	64·38	158·2
1877	858	1,00,35,295	59,47,402	40,87,893	59·26	224·3
1878	857	66,30,174	50,42,193	15,87,981	76·05	148·4
1879	857	66,26,486	45,51,316	20,75,170	68·68	148·3
1880	858	61,62,546	42,05,409	19,57,137	68·24	137·5
1881	858	63,11,313	42,35,456	20,75,857	67·11	141·1
1882	860	69,18,571	43,47,729	25,70,842	62·84	154·4
1883	861	66,31,909	41,05,360	25,26,549	61·90	147·7

595. The South Indian Railway [14] head-quarters are at present at Negapatam, but will shortly be moved to Trichinopoly, the locomotive department, workshops, and stores alone remaining at Negapatam. The Company's undertaking consists of a main line running south from Madras to Tuticorin (444 miles). There are branches from Tanjore to Negapatam (48 miles); from Trichinopoly to Erode,

[7] EARNINGS OF MADRAS RAILWAY UNDER COACHING AND GOODS FOR 13 YEARS.

Years.	Coaching.		Goods.		Total.
	Amount.	Per open mile per week.	Amount.	Per open mile per week.	
	RS.		RS.		RS.
1871	22,12,922	51·56	35,55,172	82·85	57,68,094
1872	23,79,969	54·78	36,09,354	83·07	59,89,323
1873	25,22,717	57·46	41,51,181	94·55	66,73,898
1874	24,69,483	55·20	32,18,298	71·94	56,87,781
1875	24,65,993	55·12	37,58,441	84·01	62,24,434
1876	25,89,492	57·72	42,97,130	95·79	68,86,622
1877	26,99,426	60·33	70,87,341	158·42	97,86,767
1878	27,82,517	62·27	35,69,536	79·88	63,52,053
1879	26,21,195	58·66	37,30,522	83·48	63,51,717
1880	25,45,839	56·85	33,41,731	74·58	58,87,570
1881	26,42,909	59·07	34,85,445	77·91	61,28,354
1882	29,00,202	64·71	38,41,103	85·70	67,41,305
1883	27,33,435	60·88	37,25,755	82·99	64,59,190

[8] NUMBER OF PASSENGERS (EXCLUDING TROOPS AND POLICE) CARRIED IN EACH CLASS ON MADRAS RAILWAY FOR 13 YEARS.

Years.	First class.	Second class.	Third class.	Fourth or cooly class.	Total.
	NO.	NO.	NO.	NO.	NO.
1871	10,711	115,925	1,879,396	257,454	2,263,486
1872	9,722	111,866	2,000,359	350,032	2,471,979
1873	10,631	74,469	2,132,467	503,232	2,720,799
1874	14,747	52,258	2,111,892	569,806	2,748,703
1875	12,998	44,711	1,803,627	837,965	2,699,301
1876	12,486	39,747	1,735,411	973,872	2,761,516
1877	13,090	37,224	1,707,836	810,046	2,568,196
1878	13,737	41,275	2,144,997	440,612	2,640,621
1879	10,836	35,213	2,586,987	645,750	3,278,786
1880	10,970	34,566	3,907,487	...	3,953,023
1881	11,956	35,502	4,178,289	...	4,223,747
1882	12,172	33,081	4,235,860	...	4,281,113
1883	12,068	32,907	4,345,480	...	4,390,455

[9] RECEIPTS FROM FARES IN EACH CLASS ON MADRAS RAILWAY FOR 13 YEARS.

Years.	First class.	Second class.	Third class.	Fourth or cooly class.	Total.	First class per mile.	Second class per mile.	Third class per mile.	Fourth or cooly class per mile.
	RS.	RS.	RS.	RS.	RS.	D. N. P.	D. N. P.	D. N. P.	P.
1871 ...	1,35,655	1,72,752	14,79,175	1,01,659	18,89,241	18 22	5 12	3	2
1872 ...	1,33,728	1,53,444	15,98,014	1,38,678	20,23,864	18 22	5 12	3 4	2
1873 ...	1,27,465	1,27,177	16,96,414	2,01,715	21,52,771	* 15	5 8	3 4	2
1874 ...	1,25,783	1,14,843	16,21,021	2,32,017	20,93,664	...	...	...	...
1875 ...	1,31,781	1,15,036	14,04,716	3,42,536	19,94,069	...	...	...	...
1876 ...	1,53,216	1,27,980	14,58,189	4,22,545	21,61,930	† 18	7	3 4	2
1877 ...	1,58,513	1,27,018	15,18,083	3,62,441	21,66,055	...	...	...	...
1878 ...	1,62,532	1,37,991	17,05,894	1,82,473	21,88,890	...	...	...	...
1879 ...	1,40,875	1,15,472	15,63,793	2,65,730	20,85,870	‡ 18	7	{ 4 mail 2 ordiny. }	2
1880 ...	1,44,662	1,11,770	18,01,248	...	20,57,680	§ 18	7	2	...
1881 ...	1,59,012	1,12,977	18,95,850	...	21,67,839	...	...	...	...
1882 ...	1,64,275	1,17,250	19,77,448	...	22,58,973	...	...	...	...
1883 ...	1,55,035	1,12,808	19,72,199	...	22,40,042	...	...	...	...

* From 31st August 1873. † From 1st July 1876. ‡ From 1st July 1879. § From 1st May 1880.

a station on the Madras Railway (87 miles); and from Maniyauchy to Tinnevelly (18 miles). The Company have also a branch from Arconum, a station on the Madras Railway, to Chingleput on the main line (39). Another branch goes from Villoopooram to meet the Pondicherry Railway Company's line (7¾ miles French) at the Jinjee river (17 miles). The South Indian Railway system at present consists of 654 miles of railway, all single line. The first portion of the Company's undertaking, from Negapatam to Erode, was constructed on the Indian broad gauge of 5 feet 6 inches; but, when the extensions to Madras and Tuticorin were sanctioned, it was determined that the entire system should be on the Indian narrow, or metre,

[10] PERCENTAGE OF NUMBERS AND RECEIPTS ON MADRAS RAILWAY FOR 13 YEARS.

Years.	Numbers.				Receipts.			
	First class.	Second class.	Third class.	Fourth class.	First class.	Second class.	Third class.	Fourth class.
1871	0·47	5·12	83·03	11·38	7·18	9·14	78·30	5·38
1872	0·39	4·53	80·92	14·16	6·61	7·58	78·96	6·85
1873	0·39	2·74	78·37	18·50	5·92	5·91	78·80	9·37
1874	0·54	1·90	76·83	20·73	6·01	5·48	77·43	11·08
1875	0·48	1·66	66·82	31·04	6·61	5·77	70·44	17·18
1876	0·45	1·44	62·84	35·27	7·09	5·92	67·44	19·55
1877	0·51	1·45	66·50	31·54	7·32	5·86	70·09	16·73
1878	0·52	1·56	81·23	16·69	7·43	6·30	77·93	8·34
1879	0·33	1·07	78·90	19·70	6·75	5·54	74·97	12·74
1880	0·28	0·87	98·85	...	7·03	5·43	87·54	...
1881	0·28	0·79	98·93	...	7·34	5·21	87·45	...
1882	0·29	0·77	98·94	...	7·27	5·19	87·54	...
1883	0·27	0·75	98·98	...	6·92	5·04	88·04	...

[11] RECEIPTS AND TONNAGE OF GOODS (EXCLUDING MILITARY STORES AND RAILWAY MATERIAL) ON MADRAS RAILWAY FOR 13 YEARS.

Years.	General merchandise.				
	Tons lifted.	Receipts.	Average receipt per ton.	Ton miles.	Average receipt per ton mile.
		RS.	RS.		PIES.
1871	315,935	33,70,434	10·67	51,455,627	12·58
1872	360,459	34,72,251	9·63	58,873,353	11·32
1873	399,972	39,81,353	9·95	71,345,462	10·71
1874	366,369	30,79,148	8·40	56,467,305	10·47
1875	410,967	36,22,514	8·81	67,453,992	10·31
1876	609,506	41,38,124	6·79	81,509,975	9·75
1877	984,628	69,16,585	7·02	158,489,757	8·38
1878	528,532	33,73,812	6·39	69,558,407	9·31
1879	644,491	36,07,523	5·60	75,706,107	9·15
1880	605,722	31,75,534	5·24	64,807,447	9·41
1881	498,782	32,81,212	6·58	66,319,157	9·50
1882	480,637	36,34,610	7·56	77,387,176	9·02
1883	511,279	35,26,877	6·90	77,283,179	8·76

[12] CAPITAL STATEMENT OF MADRAS RAILWAY FOR 13 YEARS.

—	Capital outlay on construction account.	Guaranteed interest.	Net profits.	Loss to the State.	Percentage of net profits on capital outlay.
	£	£	£	£	
1871	9,436,050	493,838	266,570	227,268	2·83
1872	9,589,443	499,922	271,282	228,640	2·83
1873	9,644,244	500,174	269,215	230,959	2·80
1874	9,710,168	500,292	192,542	307,750	1·98
1875	9,745,936	508,114	175,389	332,725	1·80
1876	9,779,215	509,159	231,780	277,379	2·37
1877	9,965,962	510,569	363,682	146,887	3·65
1878	10,079,635	516,962	157,418	359,544	1·56
1879	10,137,925	522,885	190,224	332,661	1·88
1880	10,161,744	523,997	179,404	344,593	1·76
1881	10,195,933	524,000	190,287	333,713	1·87
1882	10,224,913	521,493	235,660	285,833	2·30
1883	10,241,237	523,233	231,600	291,633	2·26

gauge, of 3 feet $3\frac{3}{8}$ inches. The conversion of the Negapatam-Erode branch to the metre gauge was completed in December 1879, and that of the Arconum-Conjeeveram section in July 1878. Since the opening of the line throughout, the portion from Madras to Tuticorin is considered the main line, with branches to Arconum, Pondicherry, Negapatam, Erode, and Tinnevelly. The South Indian Railway Company also works under agreement the portion ($7\frac{3}{4}$ miles) of the Pondicherry Railway lying within French territory, retaining as working expenses the same percentage of gross receipts as the traffic on the main system of the South Indian Company is from time to time worked at. The lists given in Vol. II, App. LXXV of the stations on the South Indian Railway with distances afford a view of the system. On the Negapatam-Erode section, originally broad gauge, the rails weighing 68 lb. to the yard are laid partly on iron pots and partly on wooden sleepers. On the Arconum-Conjeeveram section, originally 3 feet 6 inch gauge, the rails weigh 35 lb. to the yard, and on other portions of the line the rails are 40·3 lb. and are laid on wooden sleepers. These sleepers will, in all probability, be replaced by wrought-iron sleepers, and in future all rail renewals will be made with 50 lb. steel-rails. The trains on this line are worked on the train despatching system combined with a "line clear and caution message" except between Egmore and the beach (Madras), where the "train staff and ticket" rules are in force. On two sections only of this line, viz., from Trichinopoly to Madura on the main line and from Trichinopoly to Erode, do the gradients exceed 1 in 200. On these two sections the ruling gradient is 1 in 100. A certain number of vehicles are to be fitted up as ambulance carriages, to be used for ordinary traffic, unless required for military purposes. The fittings are to be kept at Trichinopoly. At present 19 third-class carriages are completed with the exception of the internal fittings which are in hand. Coal and wood are burnt for locomotive purposes on the main line south of Trichinopoly and on the Tinnevelly and Erode branches; on all other parts coal is alone used. The mails and postal servants are carried free, and for their accommodation 16 carriages have been specially fitted up on a type supplied by the Government of India for general adoption. There were in 1883-84 on the open line 7,208 employés, of whom 76 were Europeans, 349 East Indians and 6,783 Natives. There is no separate police force on this railway, the duties being performed by the Government police and paid by the State. A Volunteer corps has recently been started at Negapatam and Trichinopoly under the command of the Locomotive Superintendent, but as yet it is only in its infancy. For medical purposes the railway is divided into nine districts, each in charge of an apothecary, under the superintendence of a Civil Surgeon at a centrally-situated station, who accepts remuneration from the Company and is styled the Superintending Physician, and at six other stations there are Civil Surgeons whose professional aid would be sought in the event of a serious occurrence.

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[13] NATURE OF STOCK OF MADRAS RAILWAY.

Stock.

			£
Amount bearing interest	at 5 per cent. per annum	... ...	8,757,670
Do.	at $4\frac{3}{4}$ do.	... ...	999,960
Do.	at $4\frac{1}{2}$ do.	... ...	500,000
			10,257,630

Debentures.

			£
Amount bearing interest	at 4 per cent. per annum	... ...	302,200
Do.	at $3\frac{1}{2}$ do.	... ...	97,800
		Total ...	10,657,630

[14] SKETCH HISTORY OF CONSTRUCTION OF THE SOUTH INDIAN RAILWAY.—The line from Negapatam to Erode was commenced in May 1859 by the Great Southern of India Railway Company, and was completed on the 5 feet 6 inch gauge in December 1867. The line from Arconum to Conjeeveram was commenced in March 1864 by the Indian Tramway Company, and was completed on the 3 feet 6 inch gauge in May 1865. On the 1st July 1874, the two railways were amalgamated under the title of the South Indian Railway, and the whole system is now on the metre gauge. The conversion of the Negapatam-Erode branch to the metre gauge was completed in December 1879, and that of the Arconum-Conjeeveram section in July 1878. The line from Trichinopoly to Tuticorin was completed in January 1876, and the northern extension from Tanjore to Madras in July 1879. The Pondicherry branch was opened to the public in December 1879, and completed for full speed traffic in July 1882. The branch from Little Conjeeveram to Chingleput was opened for traffic on 1st January 1881.

596. The capital expenditure on the South Indian Railway up to 31st December 1883 was Rupees 4,32,72,177 (£4,146,917). The total capital expenditure, including line under construction and stores, was Rupees 4,53,69,832 (£4,347,942). The capital expenditure during the year 1883-84 was Rupees 2,50,748. The net profits in the same year were Rupees 13,22,333 (£126,724), giving a dividend at the rate of 2·9 per cent. on the total capital expenditure. The net profits fell short of the guarantee by £77,000. The guaranteed interest from the formation of the company up to 31st December 1883 amounted to £3,022,742, and the net profits for the same period to £1,348,247, leaving a balance of £1,674,495 to be met from the revenues of India, in addition to the expenditure on land and control. Its financial condition is illustrated by the statements at foot.[15 to 21] The subscribed capital

[15] EARNINGS AND EXPENDITURE OF SOUTH INDIAN RAILWAY FOR 13 YEARS.

Miles open.	Years.	Gross earnings.	Expenditure.	Net revenue.	Percentage of expenses to receipts.	Receipts per open mile per week.
		RS.	RS.	RS.		RS.
187	1871	8,13,883	4,52,562	3,61,321	55·61	84·0
187	1872	8,42,022	4,78,873	3,63,149	56·87	86·7
187	1873	11,53,212	5,76,463	5,76,749	49·99	119·1
187	1874	9,69,746	5,89,678	3,80,068	60·81	100·1
219	1875	10,78,481	5,19,400	5,59,081	48·16	94·8
424	1876	19,90,800	10,60,522	9,30,278	53·27	89·8
579	1877	32,33,246	16,45,026	15,88,220	50·88	106·9
608	1878	32,33,140	21,55,033	10,78,107	66·65	102·2
614	1879	33,62,067	22,98,815	10,63,252	68·37	104·8
638	1880	35,59,594	26,29,576	9,30,018	73·87	105·8
654	1881	37,55,688	25,17,962	12,37,726	67·04	109·9
655	1882	37,58,714	23,56,386	14,02,328	62·69	110·0
655	1883	38,69,668	25,47,335	13,22,333	65·83	113·3

[16] EARNINGS OF SOUTH INDIAN RAILWAY UNDER COACHING AND GOODS FOR 13 YEARS.

——	Coaching.		Goods.		Total.
	Amount.	Per open mile per week.	Amount.	Per open mile per week.	
	RS.		RS.		RS.
1871	4,83,717	49·94	3,10,978	32·11	7,94,695
1872	4,68,050	48·19	3,56,846	36·74	8,24,896
1873	5,77,199	59·59	5,40,602	55·82	11,17,801
1874	5,39,217	55·67	4,04,238	41·74	9,43,455
1875	5,65,864	49·72	4,63,239	40·71	10,29,103
1876	11,83,325	53·38	7,18,132	32·39	19,01,457
1877	15,96,193	52·78	15,14,783	50·09	31,10,976
1878	19,06,087	60·22	12,26,495	38·75	31,32,582
1879	20,03,022	62·46	13,09,593	40·84	33,12,615
1880	20,62,513	61·30	14,45,911	42·98	35,08,424
1881	21,06,450	61·68	15,41,534	45·14	36,47,984
1882	21,14,967	61·92	15,94,462	46·69	37,09,429
1883	20,68,188	60·56	17,47,591	51·17	38,15,779

[17] NUMBER OF PASSENGERS (EXCLUDING TROOPS AND POLICE) CARRIED IN EACH CLASS OF SOUTH INDIAN RAILWAY FOR 13 YEARS.

——	First class.	Second class.	Third class.	Total.
	NO.	NO.	NO.	NO.
1871	2,140	17,447	879,774	899,361
1872	2,241	16,140	1,093,369	1,111,750
1873	2,467	14,916	1,483,280	1,500,663
1874	2,706	15,088	1,493,870	1,511,664
1875	3,564	23,744	1,520,956	1,548,264
1876	8,483	67,820	2,732,806	2,809,109
1877	11,738	130,161	3,868,491	4,010,390
1878	15,191	125,994	4,855,592	4,996,777
1879	17,071	106,859	5,056,933	5,180,863
1880	7,709	40,853	4,402,908	4,451,470
1881	7,559	36,036	4,259,391	4,302,986
1882	7,437	37,233	3,750,516	3,795,186
1883	10,330	56,098	5,079,430	5,145,858

of the South Indian Railway is made up as under.[22] The whole of the above capital was raised in the London market with the exception of Rs. 13,319-10-0 raised in India at the commencement of the undertaking.

597. RAILWAYS IN PROSPECT.—The note at foot [23] shows extensions of the railway system in this Presidency now in progress or in contemplation. From the

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[18] RECEIPTS FROM FARES IN EACH CLASS OF SOUTH INDIAN RAILWAY FOR 13 YEARS.

—	First class.	Second class.	Third class.	Total.	Fares.		
					First class.	Second class.	Third class.
	RS.	RS.	RS.	RS.	PIES.	PIES.	PIES.
1871	8,877	15,428	4,29,459	4,53,764	18	5	3
1872	8,508	13,448	4,19,327	4,41,283	(a) 12	5	2
1873	7,544	13,785	5,22,961	5,44,290	...	...	...
1874	7,561	14,159	4,86,092	5,07,812	...	...	...
1875	9,381	16,482	4,93,584	5,19,447	(b) 8	3	2
1876	18,936	37,277	10,62,932	11,19,165	...	...	...
1877	23,007	68,145	14,06,991	14,98,143	...	...	...
1878	29,116	70,409	17,05,974	18,05,499	...	...	...
1879	33,760	64,404	17,88,485	18,86,649	...	...	...
1880	43,767	54,175	18,58,437	19,56,379	(c) 18	6	{ 3 through { 2 local.
1881	44,815	49,071	18,92,848	19,86,734	(d) 18	6	2½
1882	46,659	51,581	18,76,002	19,74,242	...	...	...
1883	42,073	50,891	18,54,966	19,47,930	(e) 12	4	2

(a) From 1st July 1872.
(b) From 1st September 1875.
(c) From 1st January 1880.
(d) From 1st July 1881.
(e) From 1st January 1883.

[19] PERCENTAGE OF NUMBERS AND RECEIPTS ON SOUTH INDIAN RAILWAY FOR 13 YEARS.

—	Numbers.			Receipts.		
	First.	Second.	Third.	First.	Second.	Third.
1871	0·24	1·94	97·82	1·96	3·40	94·64
1872	0·20	1·45	98·35	1·93	3·05	95·02
1873	0·17	0·99	98·84	1·39	2·53	96·08
1874	0·18	1·00	98·82	1·49	2·79	95·72
1875	0·23	1·53	98·24	1·81	3·17	95·02
1876	0·30	2·41	97·29	1·69	3·33	94·98
1877	0·29	3·24	96·47	1·54	4·55	93·91
1878	0·30	2·52	97·18	1·61	3·90	94·49
1879	0·33	2·06	97·61	1·79	3·41	94·80
1880	0·17	0·92	98·91	2·24	2·77	94·99
1881	0·17	0·84	98·99	2·26	2·47	95·27
1882	0·20	0·98	98·82	2·36	2·61	95·03
1883	0·20	1·09	98·71	2·16	2·61	95·23

[20] RECEIPTS AND TONNAGE OF GOODS (EXCLUDING MILITARY STORES AND RAILWAY MATERIALS) ON SOUTH INDIAN RAILWAY FOR 13 YEARS.

—	General merchandise.				
	Tons lifted.	Receipts.	Average receipts per ton.	Ton miles.	Average receipts per ton mile.
		RS.	RS.		PIES.
1871	91,023	3,04,564	3·35	4,932,954	11·85
1872	96,346	3,45,512	3·59	5,713,312	11·61
1873	110,828	3,40,393	3·07	5,748,780	11·37
1874	107,814	3,55,200	3·29	6,397,201	10·66
1875	108,359	4,12,505	3·81	7,435,023	10·65
1876	182,134	6,85,720	3·76	13,742,251	9·58
1877	375,240	14,79,350	3·94	33,770,543	8·41
1878	369,332	11,88,743	3·22	25,643,456	8·90
1879	440,463	12,74,566	2·89	28,649,984	8·54
1880	513,266	13,65,809	2·66	32,523,571	8·06
1881	449,478	13,73,528	3·06	33,826,510	7·80
1882	415,403	14,40,555	3·47	35,070,857	7·89
1883	434,834	16,07,125	3·70	36,620,315	8·43

remarks given it may be gathered that most of the lines proposed are brought forward on 'protective' grounds, that is to say, as lines required for the protection of the population during famine. Experience of the working of the Madras Railway and of the South Indian Railway does not lead to the conclusion that any other through line of considerable length, which could be constructed in the

[21] CAPITAL STATEMENT OF SOUTH INDIAN RAILWAY FOR 13 YEARS.

——	Capital outlay on construction account.	Guaranteed interest.	Net profits.	Loss to the State.	Percentage of net profits on capital outlay.
	£	£	£	£	
1871	1,486,730	162,096	33,246	128,850	2·25
1872	1,565,500	176,572	33,377	143,195	2·13
1873	1,707,719	177,112	53,011	124,101	3·10
1874	1,975,126	177,087	36,410	140,677	1·84
1875	2,630,077	177,062	53,537	123,525	2·04
1876	3,342,247	177,063	89,196	87,867	2·67
1877	3,619,169	185,721	151,979	33,742	4·20
1878	3,769,353	195,174	103,559	91,615	2·75
1879	3,920,480	200,791	101,895	98,896	2·60
1880	3,993,659	203,995	89,127	114,868	2·23
1881	4,102,314	203,995	118,615	85,380	2·89
1882	4,122,887	203,995	134,390	69,675	3·26
1883	4,146,917	203,995	126,724	77,271	3·02

[22] NATURE OF STOCK OF SOUTH INDIAN RAILWAY.

	£	s.	d.
Stock.			
Five per cent. stock issued at par	1,085,736	9	0
Five per cent. stock issued at 3 per cent. premium	1,940,000	0	0
Four and three-quarters per cent. stock	184,909	0	0
	3,210,645	9	0
Capital not bearing interest	61,510	0	11
	3,272,155	9	11
Debentures.			
Raised by loan at 4 per cent.	620,000	0	0
Raised by issue of debenture stock at $4\frac{1}{2}$ per cent.	425,000	0	0
Total ...	4,317,155	9	11

[23] NOTES ON RAILWAY LINES SUGGESTED OR IN PROGRESS.—(1) *Cuddapah-Nellore State Railway.*—In December 1882 the reconnoissance of two alternative routes for a line of railway leading westwards from Nellore was undertaken: the one route up the valley of the Pennair to the Vontimittah station on the Madras Railway, the other in a more southerly direction up the valley of the Swarnamookhy to the Tripatty station. The result of the reconnoissance was altogether in favour of the route to Tripatty, and the line on metre gauge is now under construction as far as the town of Tripatty, a distance of probably 80 and odd miles. It is anticipated that this line will enable the produce of the Pennair delta to be conveyed direct into the heart of the Cuddapah sub-division and the adjacent talooks of Poonganore and Pulmanair in North Arcot, which suffered greatly during the famine. With this object the surveys of the extension viâ Chundragherry, Peelair and Voilpaud to Madanapully, and thence to Kadiry and Dharmavaram have been undertaken, and an estimate for this portion of the line will shortly be submitted. (2) *Bellary-Kistna State Railway.*—Towards the close of 1882 a reconnoissance was undertaken to ascertain the best route for a line of railway to connect the Kistna delta with the districts of Kurnool, Bellary and Anantapore. There are but two passes through the Nullamullay hills that offer a practicable route for such a line—the Mantralacanama and the Nundicanama—of these, the latter was found to offer by far the best route, and the construction of a metre-gauge line from Bezwada through Vinoocondah-Cumbum, the Nundicanama Pass and Nundiaul to Goontacull on the Madras Railway, a distance of about 280 miles, has been sanctioned and is now in progress. The surveys for an extension of this line from Goontacull to Hindoopore viâ Anantapore and Penoocondah are now in hand. It is anticipated that this line will enable the surplus grain grown in the Godavery and Kistna deltas to be brought to points whence it can be distributed throughout the tract which suffered more than any other parts of the Presidency during the famine of 1877-78. It is also believed that this line will serve as a direct and effectual means to distribute coal from the Singareny field among the railways in the northern provinces of this Presidency and in Mysore. At Dharmavaram this extension will effect a junction with the Cuddapah-Nellore Railway, and it is hoped that it will ultimately, with the Villoopooram-Arcot-Chittore line, afford a connecting link between the Southern Mahratta and the South Indian metre-gauge systems. It is hoped that ere long the Mysore Railway system, also on the metre gauge, will be connected with these lines. (3) *From Bellary to Hospett and Hooblee.*—The section between Bellary and Hospett, 40 miles in length, was begun as a famine work during 1877-78; and the Madras Government pressed for its completion, on the $5\frac{1}{2}$ feet gauge, as a protective work and as a feeder to the Madras Railway. It was finally decided that the line should form part of the metre-gauge system which has been handed over to the Southern Mahratta Railway Company. The portion from Bellary as far as Hospett was opened for traffic on the 24th of March 1884. A third rail will probably be laid on the Bellary branch of the Madras Railway to connect this line with the metre-gauge line from Bezwada to Goontacull. (4) *From Bezwada to the Singareny Coal-field.*—The construction of a line of railway from Bezwada to Singareny would probably prove of great advantage to the Madras Presidency, and especially to its railways, by bringing coal from the nearest available field yet discovered to a point whence it can be sent to Madras by canal. The Locomotive Superintendent of the Madras Railway Company has already made some valuable experiments with coal from Singareny. Mr. Trevithick reported that "it is a good, serviceable fuel, and if the facilities for carriage were such as to admit of its being delivered to consumers at a reasonable rate, it should be well worth working." The consumption per mile run was found to be 33·48 lb., as compared with 24·56 lb. of patent fuel, which has hitherto given more economical results than any other kind of imported fuel. Mr. Trevithick added that, as

south of India, could be relied on to yield a direct net return of 4 per cent. on the capital outlay. The Madras Railway and the South Indian Railway system include between them the main arteries of traffic in the Presidency. The chief causes for the comparatively inconsiderable results on those railways are to be

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compared with the price paid for patent fuel, the Singareny coal would be worth Rs. 17-13-6 per ton delivered in Royapooram yard. The cost of coal at the pit's mouth at Singareny has been estimated by the Hyderabad Government at Rs. 6 per ton. The length of a railway from Singareny to Bezwada would probably be about 80 miles; so that, if carried at 8 pies per ton per mile, coal could be delivered at Bezwada at Rs. 9-5-4 per ton. The distance to Madras by water is 274 miles; and the charge for regular cargoes of coal conveyed in full boat-loads should not exceed 2 pies per ton per mile, giving Rs. 2-13-8 per ton for the whole distance. If these items are correct, the cost per ton for coal delivered at Madras should be about Rs. 12-3-0 per ton. Between this figure and Rs. 17-13-6, which the Locomotive Superintendent is prepared to pay, there seems to be sufficient margin to cover omissions and errors in calculation. The construction of a line of light railway on the metre gauge from Bezwada to Singareny has therefore been advocated. If continued through Warangal to Hyderabad, the line would probably prove of great importance in a protective point for the distribution of grain in time of scarcity. The survey of this line has been recently undertaken by the Nizam's Guaranteed State Railway Company (Limited). (5) *From Vizagapatam to Raupore.*—During the cold season of 1881-82 a preliminary reconnoissance was made of the country between Vizagapatam and Raupore. Several routes were examined, and it was finally decided to make a survey of the route lying to the east of the Noagarh hills, starting from Vizagapatam, and passing near Parvatipore, Ombadola and Asseergurh. The total length between Vizagapatam and Raupore is estimated at 372 miles. The survey will, it is believed, be finished in the current season (1884), and plans and estimates for the whole will shortly be submitted. (6) *From Beypore to Calicut.*—The importance of extending the Madras Railway from Beypore to Calicut has been pressed for many years. So long ago as 1866 the Consulting Engineer wrote: "I cannot but think it desirable that the whole question as to the advisability of Beypore continuing to be the terminus of the Madras Railway should be fully considered. A place more isolated and inhospitable than the site of the present station, or one to all appearance more unsuitable as a terminus to an extensive railway system, it would be hard to imagine. It consists of a narrow sand-ridge, surrounded on three sides by water, uninhabited save by the employés of the railway, and cut off during the monsoon from all communication with the neighbouring villages and markets. Upon this miserable spot passengers and goods are dropped by the trains twice a day; and if the former wish to prosecute their journey, they have the option, either to wait for the weekly coasting steamer, or to proceed, by ferry boat and bullock coach, to some habitable place along the coast. At a distance of only 7 miles to the north lies the populous and wealthy town of Calicut, the most important, with the exception of Cochin, of the western seaports in this Presidency. All circumstances seem to combine in pointing to Calicut as an eligible terminus for the Madras Railway. Its position as the natural outlet for the produce grown in the Wynaud and on the western slopes of the Neilgherries, as the seat of the District Courts of law and as the residence of the chief civil officers of Government, the wealth and enterprise of its mercantile community, the well-supplied and crowded state of its markets, the existence of a bank and of a marine establishment, all tend to prove the importance of Calicut—an importance which is daily increasing." The proposal for the extension was lately revived by some of the leading inhabitants of Calicut in a memorial addressed to the Government, who undertook to have the line surveyed and estimated. This duty was entrusted to the Madras Railway Company; and an estimate, amounting to 12½ lakhs, was submitted, being at the rate of nearly 2 lakhs per mile of line. Subsequently, the Local Fund Board suggested that a reduction in the estimate might be effected by the adoption of an alternative route; and the Madras Railway Company have been asked to undertake a fresh investigation. The proposal for the extension to Calicut is affected in an important manner by the recent action of the sea at Beypore, which has carried away a considerable width of foreshore, and by which the safety of the line of railway near the terminus is now threatened to such an extent as to raise the question whether it would not be advisable to abandon Beypore as a terminus, and to divert the line a short distance inland, taking it to a new terminus at Calicut. The distance from Beypore to Calicut is under 7 miles. An estimate, based on a revised survey, has recently been submitted and is now under the consideration of the Secretary of State. (7) *From Mettapolliem to Coonoor.*—The construction of a line from Mettapolliem to Coonoor was undertaken by the Neilgherry Railway Company with a capital of Rs. 18,00,000, upon which sum, as a maximum, the Madras Government consented to guarantee interest at 3 per cent. for two years during construction, and at 4 per cent. for five years after the line was opened. The Government also agreed to supply, free of cost to the Company, the land required for the line, and to lease it to them for ninety-nine years rent-free; the Government having the option to purchase the undertaking, upon payment of Rs. 125 for every Rs. 100 of capital outlay, after the line had been opened for twenty-five years, and at the end of every subsequent period of ten years. The line to be on the metre gauge, and the rack-rail or Rigi principle to be adopted for the steep gradients. The Company being unable to raise the required capital on these terms, recently applied to Government for fresh terms, which are now under consideration. The promoters now ask for a guarantee of 3 per cent. on capital paid in within a maximum of £200,000 during construction, and from the date on which the line shall be open for traffic they ask such sum as added to the gross receipts of the Company in each half-year shall be equal to one lakh of rupees. The distance from Mettapolliem to Coonoor is 12 miles, of which about 7 miles will be on steep gradients, the maximum being 1 in 6. (8) *From Vellore to Poloor, Trinomallee and Villoopooram.*—The construction of a branch line has often been suggested to connect the town of Vellore with the Madras Railway station which bears that name, and which is distant from the town about 4 miles. Such a line should be constructed on the metre gauge, and the proposal should include its extension to join the South Indian Railway at Villoopooram. The length of the proposed line from the Madras Railway at Vellore to the South Indian Railway at Villoopooram is about 90 miles. The survey of this line will shortly be completed. The construction of a connecting link between Chittore and the Madras Railway station at Vellore has also been more than once suggested. If the scheme last mentioned, for a metre-gauge line to connect Vellore with Villoopooram, meets with approval, it would certainly be desirable that the link to Chittore should be made in continuation thereof, and also on the metre gauge. In the event of that being done, it might in time become desirable to extend the metre-gauge connection in a north-easterly direction with a view to connect the South Indian metre-gauge system with the extension of the Cuddapah-Nellore Railway, and so link it in with the Southern Mahratta metre-gauge railway system, the Bellary-Kistna Railway, and eventually with the Mysore Railway. (9) *From Parvatipore to Calingapatam.*—A short line, branching from the Vizagapatam-Raupore line at Parvatipore, and carried to the coast at Calingapatam, has been suggested. This branch would pass through Palcondah and Chicacole, and would probably serve to open out an important tract of country in the south of the Ganjam district. The length of the branch may be roughly taken at about 60 miles. No survey has yet been made, or is at present contemplated. (10) *From Gopalpore to Sonapore.*—In view to the further opening out of the Ganjam district, the construction of a line of railway has been suggested, starting from the fort of Gopalpore, and running in a north-westerly direction through Berhampore, Aska, and Russellcondah; thence across the Goomsoor highlands to the great mart of Sonapore, where it would probably join one of the branches which are likely to be made in connection with the main line between Nagpore and Seetarampore. No investigation has yet been made respecting this proposal; but if it should be found practicable to carry the line at an easy gradient up to the Goomsoor plateau, there can be little doubt that its construction would serve to open out a large tract of splendid country. The distance from Gopalpore to Sonapore is about 140 miles. (11) *From Calicut to Wynaud and Mysore.*—During 1881 certain proposals were made to the Secretary of State for the construction of a line of railway on the metre gauge from Calicut or Beypore to Goodalore, with the right of extension to Mysore. The Secretary of State held out no expectation of a guarantee of interest, or other direct pecuniary assistance; but promised that all necessary facilities should be given for making the surveys, which, however, have not yet been put in hand. An alternative mode, by which Wynaud would obtain the advantages of railway communication, at moderate cost,

found (*a*) in the geographical character of the country served, lying within the narrowest and most restricted part of the Indian peninsula; (*b*) in the absence of any leading staples of traffic and of any great centre, such as Calcutta or Bombay, on which such staples might concentrate with a long lead; (*c*) in the poverty

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would be the extension of the Mysore Railway to Goodalore. That line is now open between Bangalore and Mysore, and its extension to Nunjangode and Goondalpet has been suggested; but it is improbable that any extension of the Mysore Railway in this direction will be undertaken until Bangalore shall have been placed in railway connection with the Southern Mahratta Railway system. (12) *From Shoranore to Cochin.*—The Cochin and Travancore Railway Company undertook the construction, on certain terms, of a line of railway on the 5½ feet gauge from Shoranore, a station on the Madras Railway, to Ernacolum, on the east side of the Cochin harbour; and the proposals were recommended by the Madras Government. The expenditure was estimated to fall within Rupees 66,00,000, and it was proposed that interest at 3½ per cent. on the actual outlay within that maximum should be jointly guaranteed for a term of fifteen years by the British Government and by the Native States of Travancore and Cochin. Of such guarantee, Cochin undertook to bear 2 per cent., subject to the condition that the State should not be called on to make good anything in excess of an annual average rate of Rupees 50,000. In like manner, Travancore undertook to bear 1 per cent., provided that the liability of the State should not exceed Rupees 35,000 in any one year. The Madras Government recommended that the responsibility for the balance of the proposed guarantee should be assumed by the British Government. The proposals were, however, unfavourably received by the Government of India, who were of opinion that a guarantee for so long a period as fifteen years was uncalled for, and that any expenditure from Imperial funds was undesirable. An alternative arrangement was suggested on the basis of a guarantee during the period of construction only to be borne by the Madras Provincial Revenues and by the Native States in suitable proportions. With respect to that suggestion, it has been pointed out to the Government of India that almost the whole of the proposed line will lie without the limits of this Presidency; that, beyond the indirect benefits which every new line of railway must confer on neighbouring provinces, there is no reason to suppose that Madras will gain by its construction; that the direct advantages will fall to the two Native States, through whose territories the line will run, and to the British Government, as being solely interested in the traffic on the Madras Railway, to which the proposed line would form a valuable feeder; that it was accordingly intended to share the guarantee between the Native States and the British Government; and that the Madras Provincial Revenues cannot reasonably be expected to undertake the responsibility suggested by the Government of India. It is to be feared that the unfavourable reception which the proposals met with will hinder the construction of a line which it was hoped would have thrown considerable traffic on to the Madras Railway, by opening out a large tract of fertile and populous country, and by uniting the port of Cochin to the Indian Railway system. The length of the proposed line between Shoranore and Ernacolum is nearly 60 miles. (13) *From Tinnevelly to Quilon and Trivandrum.*—During September 1881 the South Indian Railway Company were authorized to undertake the survey for a metre-gauge line of railway from Tinnevelly viâ Shencottah and the Ariyancauv pass to Quilon, with a branch to Trivandrum; and, with the approval of Government, the survey of an alternative line from Tinnevelly to Trivandrum viâ Aramboly pass and Nagacoil was also undertaken. These surveys, with a report by the Chief Engineer of the South Indian Railway, were laid before the Travancore Government. His Highness the Maharajah of Travancore having expressed a decided preference for the former (the northern) route, the Madras Government directed that this route should be further examined, and that an estimate should be submitted for a line with a gradient, if possible, not exceeding 1 in 70. The results of this investigation are now under consideration, but it is feared that the costly character of the works will prove prohibitive. Under instructions from the Secretary of State, the cost of the surveys has been borne by the Government, although executed by the agency of the South Indian Railway Company. The length of the line from Tinnevelly to Quilon viâ Shencottah is estimated at 106 miles; and of the alternative line from Tinnevelly to Trivandrum viâ Tovaley at 89 miles. (14) *From Mayavaram to Tranquebar.*—An estimate was prepared for connecting Tranquebar with the Mayavaram station on the South Indian Railway by a metre-gauge line, 17¾ miles in length. The estimate, when revised, amounted to Rupees 8,77,187. The proposal was not regarded with favor by the Consulting Engineer to Government, or by the Agent of the South Indian Railway Company; and the local authorities in Tanjore are now strongly in favour of constructing other lines of railway within that district as being more likely to yield remunerative returns than the one proposed between Mayavaram and Tranquebar. One of these projects has in view the connection of the port of Adiramputnam and the adjacent salt works with the South Indian Railway, and the survey for this line has just been completed and will shortly be laid before Government. (15) *From Balapore to Madanapully.*—In a recent memorandum the late Diwan of Mysore suggested the construction of a branch from the proposed line between Bangalore and Tadpatry, taking off at Balapore, and leading by Chintamany to Madanapully in the Cuddapah district. The Diwan remarked that such a line "would traverse a country where there is much trade," adding that "the want of railway communication to Madanapully was very much felt during the famine, and in ordinary days there is considerable trade between Madanapully and the surrounding country with Bangalore through Chintamany." The Diwan further stated that the Mysore Government would be ready to take the matter into consideration so soon as the prospects of a metre gauge from Tadpatry to the Mysore frontier are definitely known. Recent investigations have shown that the connections between Madanapully and the Madras Railway will be made at Tripatty and Goontacull instead of, as formerly conjectured, at Tadpatry. The total length of the proposed line from Balapore to Madanapully is probably under 60 miles, of which the portion in British territory is less than 10 miles. (16) *From Palghaut to Dindigul.*—A proposal to connect Dindigul on the South Indian Railway with Palghaut on the Madras Railway by a line on the metre gauge was brought forward for consideration during the famine of 1877-78. The Collectors of the several districts interested have reported on the traffic likely to be attracted to the line, and a survey is about to be undertaken. The length of the proposed line is about 104 miles. (17) *From Madura to Paumben.*—During 1877-78 a survey was commenced in view to estimates being framed for the construction of a line of railway from Madura, in a south-easterly direction, to Paumben. The survey was, however, never completed, the officer in charge having been removed elsewhere when the pressure of famine grew lighter. The Government have placed on record that "they attach much importance to the proposed railway, both as a protective work and for the development of the district." They have also stated their desire that the necessary investigations should be completed as soon as possible, but no staff has been available for the purpose. The length of the proposed line is about 94 miles. (18) *Tinnevelly to Coolashekharapatnam.*—It has been proposed to lay a line of light railway on the metre gauge from Tinnevelly viâ Trichendore to Coolashekharapatnam, a port on the East Coast, distant 41 miles. The line to be laid on the existing road for 27½ miles, and on a separate track for the remainder of the distance. The estimate prepared by the Local Fund Board amounts to six lakhs, but this is too low. If made with permanent-way capable of carrying the goods stock of the South Indian Railway, the cost would probably be ten or twelve lakhs. A proposal for a concession to construct this line by private enterprise was laid before Government, but the matter is at present in abeyance. (19) *Ammayanayakanoor to Periyacoolam.*—This line, which would be 28 miles in length, it was proposed to lay on the existing road for nearly the whole distance. The gauge proposed was 2 feet 6 inches, and the estimated cost was about six lakhs. The line would open up a fairly populous and rich district, and would tap the Cumbum valley, in which a good deal of produce is raised. It would also serve the sanitarium of Kodaykarnal on the Pulney hills. No steps have yet been taken towards its construction, and the matter was recently under the consideration of the Local Fund Board, with reference more especially to its financial aspect, with the result that, for the present at least, the proposal has been laid aside. (20) *From Madrantacam to Pondicherry.*—During 1878 a proposal was laid before Government for the construction of a light railway passing from Madrantacam on the South Indian Railway to Pondicherry, with the object of connecting by rail the various salt works along that part of the coast, and of developing the salt trade by providing easy means of transport. The length of the proposed line is about 48 miles; but the scheme has been finally abandoned.

and simple habits of the southern people. And the same will be true of almost all the extensions. It is not intended to make a sweeping assertion that none of the lines here noticed can be expected to prove remunerative. Some of the shorter lines will without doubt become valuable feeders to the existing railway; while others, of purely local character, may also be expected to yield fair returns. Of the longer lines, the most promising project is the one leading from Vizagapatam to Raupore; but it lies well to the north, and will be free from the conditions which have so unfortunately affected the main lines in the south. In considering the question of the smallness of the direct returns from the Madras railways it is necessary to bear in view not only the great saving to the State from having all mails carried free, and all troops, &c., at reduced rates, but also the enormous indirect return to the country at large. The progress in every direction made by Southern India of late years would have been impossible without its railways, and has been due in great measure to them. It is difficult now to realise what the condition of the Presidency would be without its railways. During the famine of 1877-78 the work done by them in Madras and Mysore was, as above said, of incalculable benefit to the country. It is on such considerations, and with the view of affording more complete protection to the population during future seasons of scarcity, that the railway extensions here dealt with are to be recommended. With respect to the order in which these extensions should be undertaken. The short lines of purely local importance, in Tanjore, Madura and Tinnevelly, may be left out of consideration; and the remainder, which affect in a more general manner the interests of the public may be divided into two groups, as follows:—(First group) Vizagapatam to Raupore, Bezwada to Singareny, Tadpatry to Mysore frontier, Tadpatry to Goontoor, Beypore to Calicut, Goodalore to Mysore frontier, Vellore to Chittore and Madanapully, Vellore to Villoopooram, Balapore to Madanapully. (Second group)—Shoranore to Cochin, Parvatipore to Calingapatam, Gopalpore to Sonpore, Tripatty to Nellore, Bangalore to Trinomallee, Tinnevelly to Trivandrum, Madura to Paumben, Mettapolliem to Coonoor.

598. Schools.—There are no railway schools; but the children of the employés, numbering 682, attend 277 local schools at the principal stations.

SALT.

599. Introduction.—Salt, which is imported from England in Bengal, quarried in Northern Punjaub, and taken from the overflow of salt-lakes in Rajpootana, is in this Presidency obtained exclusively by sea-board evaporation; as in the case of the greater part of the Bombay Presidency. The consumption of salt is greater in this country, in proportion to other articles of diet, than in any other portion of the world; and the condiment is an absolute necessary of life, both for human beings and cattle. Consequently the tax on salt, while it affects all classes, operates chiefly in connection with the interests of the poorest classes. The rate of consumption is believed to vary from 13·22 lb. per head in the northern districts of the Presidency to 17·78 lb. per head on the western coast. The tax is administered, on one plan which is the older by making the manufacture of salt a Government monopoly undertaking and selling it at a large profit, and on another plan which has been instituted since 1877 by imposing a corresponding excise duty on the article as it leaves a factory. Where the Government manufactures it estimates cost price at 3 annas per maund of $82\frac{2}{7}$ lb., and it sells wholesale or by one maund and upwards at 2 rupees 8 annas the maund. Where the excise system prevails, the Government duty is 2 rupees the maund, and the excise licenses may sell at any rate they please. The actual rate at which salt reaches the consumer retail in the bazaar is believed to vary along the coast and for some miles inland from Rupees 2-8-0 to Rupees 3-8-0 per maund. Salt is sold by the Government in enclosures along the coast for the special purpose of fish-curing at very low rates. A sum of Rupees 4,41,600 per annum is paid to the French Government, not to manufacture salt in the Pondicherry territory, but to receive supplies from British territory and to sell at prices approximately the same as the prices of the English Government.

600. LAW.—The following are the Acts and Regulations relating to the salt revenue of this Presidency [1] now in force. Madras Regulation I of 1805. This is the Act which created the Madras salt monopoly and is still in force in the greater part of the Presidency. The manufacture and sale of salt is thereby placed under the control of a general agent, whose place is now filled by the Commissioner, and made illegal except on account of Government or with its sanction. The commutation of the customary shares of mirassidars and others and of established fees and russooms to money payments is directed, and the arrangements so made are given permanence. The general agent is authorized to determine yearly the places at which salt is to be manufactured and the quantity to be made at each, and the mirassidars are declared liable to the loss of their privileges on proof of refusal to manufacture when required before the Zillah Judge. India Act VI of 1844 provides for the establishment of custom chowkies for the collection of duty on goods subject thereto imported or exported by land. Madras Act VI of 1871 provides for the manufacture of salt under the excise system in areas to which it may be extended. Licenses are to be granted for the manufacture of salt at all works which have been in operation during any part of the five years preceding its being declared in force, provided that an average of five thousand maunds has been annually produced and sold during the three years last preceding. On failure to make and sell this quantity for such a period existing licenses can be withdrawn. Provision is made for the payment of compensation in certain cases to owners whose works have been closed. The Commissioner is empowered to determine the place of storage, and carry out the necessary arrangements for general supervision and the collection of excise duty. Madras Act VI of 1878 constitutes the office of Commissioner of Salt Revenue, invests him with the powers previously exercised by the General Agent and Collectors, and permits him to delegate his powers to his subordinates with the sanction of the Governor in Council. India Act XVI of 1879, Transport of Salt, renders the transport of salt in any vessel other than a vessel of not less than 300 tons burden illegal on the west coast within certain limits, unless covered by passes which practically confine the privilege to duty-paid salt. Madras Act I of 1882, amended by Madras Act IV of 1882, provides for the better suppression of offences against the salt laws. All officers of the salt and other departments are vested by this Act with

[1] SKETCH HISTORY OF SALT ADMINISTRATION IN MADRAS.—Prior to 1805 the salt revenue of the Madras Presidency, amounting to not more than two lakhs and odd of rupees annually, was realized in different ways at different places. In some cases the right to collect it was farmed out. In others the produce was divided in varying proportions between Government and the manufacturers or mirassidars, and in others again a sort of excise or transit duty was levied. In some places Government was not concerned in its collection at all, the receipts forming portions of religious endowments and similar institutions. By Madras Regulation I of 1805 what is called the monopoly system was created and rendered applicable to the east coast, instituting some approach to uniformity in matters connected with the salt revenue. Under this system the manufacture of salt except for sale to Government was made illegal, and certain powers for determining the localities of manufacture and the quantity to be made each season at the different localities were vested in the Revenue authorities. The pecuniary rights of the mirassidars and other customary charges were at the same time converted into money payments, thereby giving rise to very considerable differences in the rates of coodivaram, or the sums paid by Government as the price of the salt manufactured, at one and the same factory, this being the form which the arrangement took where mirassy rights were involved. This Regulation was with some modifications applied to the Malabar and Canara districts by Regulation II of 1807. The modifications are of but little interest now, as the system ceased to exist on that coast several years ago, on the introduction of the Excise Act (Madras Act VI of 1871) in 1877. The importation of salt on private account was at first prohibited altogether. It was subsequently rendered legal, but subjected to a prohibitory rate of customs duty. Since 1854 it has been allowed on payment of a rate of duty which approximately places the imported article on an equal footing with that locally produced. Except on the west coast the facilities for manufacturing salt at a cheap rate are so great that importation can only take place subject to a prohibitive loss. In 1871 the Excise Act was passed with the intention of eventually relieving Government from the position of sole manufacturer of this necessary of life, but its introduction was attended by so many difficulties that it remained a dead letter for several years. Owing principally to representations from the Home salt trade a commission to investigate the whole question of the Madras salt monopoly and the objections thereto was appointed in 1875, and the greater part of the following year was devoted to the inquiry. As a consequence of their report the appointment was resolved upon of a special officer to attend to the interests of the salt revenue. The commission also reported in favor of the introduction of the excise system, and this change was effected on the west coast from the 1st November 1877, the Excise Act being brought into force from that date. Early in the following year the first Commissioner of Salt Revenue was appointed, and matters connected therewith were committed to his charge from the 1st July 1878, the present Salt department being thus constituted. In 1880 the Commissioner, who was not satisfied with the efficiency of the arrangements or the honesty of the establishments, obtained permission to prepare a scheme for the reorganization of the department. This was sanctioned and the work of reorganization commenced in 1881 has now been practically completed. The principal changes have been the appointment of officers in charge of each factory on pay which should ensure honesty, without whose sanction no salt can be removed, in the place of the ill-paid agency made use of formerly; the substitution of departmental guards for police guards; and the institution of systematic preventive measures, conducted by an adequate and well-supervised force, in every portion of the Presidency in which illicit practices have been found to exist. The number of the charges of the local heads of the department or Assistant Commissioners have been at the same time reduced by nearly one-half, in consideration of the superior subordinate agency provided, and their pay has been largely increased. The law regarding the use of illicit salt has been at the same time amended, and the introduction of the excise system has been undertaken, factory by factory, along the east coast.

power of arrest of offenders and seizure of articles liable to confiscation. Certain officers are granted powers of search and of holding departmental inquiries before trial by a criminal court, with discretion to release the offenders. Power to frame rules on various subjects connected with the salt revenue, including the regulation of the manufacture of saltpetre, is vested in Government and the definition of certain offences against the salt laws is amended. Act XI of 1882, the Indian Tariff Act, fixes the rate of customs duty on salt at that at which excise duty is leviable. Act XII of 1882, the Indian Salt Act, empowers the Governor-General in Council to impose a duty on salt by rule, and the local Government to fix the minimum prices at which salt manufactured on account of Government shall be sold. The detailed law on the subject is given under the heading "Salt" in Vol. II, App. LIV. The salt rules having the force of law are given below.[2]

601. CONSTITUTION OF THE DEPARTMENT.—The department is under the control of a Commissioner, assisted by two Deputy Commissioners on Rupees 1,200 to Rupees 1,400, and seven Assistant Commissioners on Rupees 500 to Rupees 800. The districts of Ganjam, Vizagapatam, Godavery, Kistna, Nellore and part of Kurnool constitute the charge of one Deputy Commissioner, and are divided into three Assistant Commissioners' divisions, Chicacole, Masulipatam, and Nellore. The second Deputy Commissioner has the remainder of the Presidency under his charge, comprising the Chingleput, Negapatam, Tinnevelly and central divisions, the work in

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[2] SALT RULES HAVING THE FORCE OF LAW.—Under section 2 of 33 and 34 Victoria, chapter 59 (Contracts), regarding execution of contracts by the Commissioner, Deputy Commissioners, and Assistant Commissioners of Salt Revenue—Government of India, Home Department Resolution, Fort St. George Gazette, dated 24th June 1879. Under section 6, General Act VIII of 1878 (Sea Customs), appointing Salt Commissioner as Customs Collector for the purposes of section 138—Revenue Notification, Fort St. George Gazette, 19th September 1882. (1) Under section 8 of General Act XII of 1882 (Indian Salt), fixing the price of salt sold at Tuticorin for export to Penang exclusive of duty—Revenue Notification, Fort St. George Gazette, 17th October 1882; (2) Revenue Notification, Fort St. George Gazette, dated 25th April 1882, fixing the price of salt sold at Covelong for export exclusive of duty; (3) Revenue Notification, Fort St. George Gazette, dated 19th December 1882, fixing the price of salt sold at Cootangooly in the Tinnevelly district at six annas per maund exclusive of duty; (4) Government of India Notification, Department of Finance and Commerce, No. 1449, dated 10th March 1882, Fort St. George Gazette, dated 30th March 1882, reducing duty on salt manufactured in, or imported by land into, any part of British India. (1) Under sections 8, 9 and 12 of General Act VI of 1884 (Transit Duties), declaring route by which goods may be allowed to pass into or out of French territory, and constituting certain railway stations as custom chowkies, and authorizing the station-masters thereof to exercise certain powers—Revenue Notification, Fort St. George Gazette, dated 16th December 1879; (2) under section 12, declaring certain other routes—Fort St. George Gazette, 22nd August 1882. (1) Under section 45 of Madras Act VI of 1871 (Salt Excise), laying down conditions of license—Notification by Revenue Board, Fort St. George Gazette Supplement, 1st March 1882; (2) under section 14, declaring Hosdroog to be a port—Revenue Notification, Fort St. George Gazette, dated 13th September 1881; (3) under section 45, Revenue Notification, Fort St. George Gazette, dated 12th June 1877, extending the Act to Malabar and South Canara; (4) Revenue Notification, No. 38, Fort St. George Gazette, dated 23rd February 1882, extending the Act to certain villages in Tinnevelly district; (5) under section 44, framing rules—Notification by Board of Revenue, dated 8th March 1882, Fort St. George Gazette Supplement, 9th March 1882; (6) Revenue Notification, Fort St. George Gazette, dated 13th March 1883, extending the Act to certain tracts in the Kistna district; (7) Revenue Notification, Fort St. George Gazette, dated 13th March 1883, extending the Act to Madrantacam talook in the Chingleput district; (8) Revenue Notification, Fort St. George Gazette, dated 13th March 1883, extending the Act to Tindivanam talook in the South Arcot district; (9) Revenue Notification, Fort St. George Gazette, dated 13th March 1883, extending the Act to Tenkaray talook in the Tinnevelly district; (10) Revenue Notification, Fort St. George Gazette, dated 20th March 1883, extending the Act to a portion of Goodoor talook in Nellore district; (11) Revenue Notification, Fort St. George Gazette, dated 8th May 1883 extending the Act to a portion of Puttoocottah talook, Tanjore district; (12) Revenue Notification, Fort St. George Gazette, dated 15th May 1883, extending the Act to Sooloorpett magisterial division in Nellore district; (13) Revenue Notification, Fort St. George Gazette, dated 30th October 1883, extending the Act to Chicacole talook in Ganjam district; (14) Revenue Notification, Fort St. George Gazette, dated 30th October 1883, extending the Act to a portion of the Bimlipatam magisterial division in Vizagapatam district; (15) Revenue Notification, Fort St. George Gazette, dated 30th October 1883, extending the Act to Narsapore talook in Godavery district; (16) Revenue Notification, Fort St. George Gazette, dated 30th October 1883, extending the Act to Cundoocore talook in Nellore district; (17) Revenue Notification, Fort St. George Gazette, dated 11th December 1883, extending the Act to Trivathauny magisterial division in the Madura district; (18) Revenue Notification, Fort St. George Gazette, dated 21st December 1883, extending the Act to Nellore talook in the Nellore district; (19) Revenue Notification, Fort St. George Gazette, dated 8th January 1884, extending the Act to the Repally talook in the Kistna district; (20) Revenue Notification, Fort St. George Gazette, dated 22nd January 1884, extending the Act to the Chidambaram talook in the South Arcot district. (1) Under sections 1 and 2 of Madras Act VI of 1878 (Salt Commissioner), authorizing the Commissioner of Salt Revenue to delegate all his powers under Regulations II of 1803, I of 1805, and Madras Act VI of 1871, to Assistant Commissioners subject to the supervision and control of Deputy Commissioners and to Deputy Commissioners subject to the supervision and control of the Commissioner—Revenue Notification, Fort St. George Gazette, dated 25th March 1884; (2) under section 2, Revenue Notification, Fort St. George Gazette, dated 23rd March 1881, withdrawing powers of Collectors under the salt laws. (1) Under section 1 of Madras Act I of 1882 (Salt Laws Amendment Act), extending the Act to certain local areas from the 1st April and 1st May 1882—Revenue Notifications, Fort St. George Gazette, 1st and 18th April 1882; (2) Revenue Notification, No. 108, Fort St. George Gazette, 30th May 1882, extending the Act to Madras district from the 1st June 1882; (3) Revenue Notification, No. 120, Fort St. George Gazette, 13th June 1882, extending the Act to Coimbatore circle from the 15th June 1882; (4) Fort St. George Gazette, 5th September 1882, No. 478, extending the Act to Madanapully talook; (5) Fort St. George Gazette, 12th September 1882, extending the Act to Calastry zemindarry; (6) Fort St. George Gazette, 19th December 1882, No. 755, extending the Act to Salem; (7) under section 27 (h), Revenue Notification, Fort St. George Gazette, dated 29th August 1882, framing rules for grant of compensation to persons improperly arrested or charged; (8) under section 27 (c), framing rules for the adjudication of confiscations and confiscated articles—Fort St. George Gazette, dated 29th August 1882; (9) under sections 27 (j) and 28, framing rules for prohibition of the manufacture and refining of saltpetre—Fort St. George Gazette, 19th September 1882.

the last being almost wholly preventive. The duties of the Deputy Commissioners, and of Assistant Commissioners under them, consist principally in the inspection and supervision of the work of the factory and preventive establishments, and of the manufacture and sale of salt. The former also exercise the power of sanction of all works entered in the budget not exceeding in cost Rupees 250 in the case of new works, and Rupees 500 in that of repairs. The treasury accounts of each division are made up in the central office from unclassified cash accounts rendered direct by the factories, and classified contingent accounts are compiled in the Assistant Commissioners' offices and submitted direct to the Commissioner, the Deputy Commissioner not being concerned with their preparation in the absence of special orders. All other correspondence passes through his hands. The immediate supervision of manufacture and sale is vested in the inspectors and assistant inspectors, officers who draw from Rupees 400 to Rupees 250, and Rupees 175 to Rupees 150, respectively, with an intermediate grade of probationary inspectors on Rupees 200. The factories are grouped in circles containing from one to four according to circumstances. An assistant inspector is allowed for each factory and an inspector for each circle, but the former is only the assistant of the latter and not in charge of the factory to which he is posted except in the absence of the latter, and then only to a limited extent. In addition to general superintendence their special duty is the check-weighment of every consignment of salt which leaves their platforms, and it is on the care with which this class of well-paid officers carry out this operation that the whole system for the prevention of fraud depends. The superior factory officers also attend to the preventive work of their circles, for which purpose a special force is usually provided. The sub-inspectors (drawing Rupees 70 to Rupees 30) are more closely concerned with manufacture and storage than anything else. The estimation and rejection, if bad, of all salt as scraped, and its subsequent storage, are their particular duties. Each sub-inspector is also usually placed in general charge of a platform and held responsible for its condition. The petty officers (on Rupees 15 to Rupees 9) are entrusted with the detailed supervision of the peons, particularly in connection with sentry duty, and also conduct sales. The protection of the pans and platforms forms the principal work of the peons, whose numbers have to be kept sufficiently high to provide adequate reliefs for the line guards during the manufacturing season. To allow of this being done economically a certain number of these officers are temporary. In addition to guarding and other ordinary duties, the peons execute petty works and repairs at a considerable saving to Government. They are also instructed in the use of fire-arms and taught a moderate amount of drill.

602. Factories.—The localities at which salt is now manufactured have to a certain extent been determined by the existence of factories at the same sites on the constitution of the monopoly system in 1805, as the manufacturers at these localities are entitled to compensation should Government see fit to close their works. The larger number have however been opened out since with reference to increases in the demand for salt. During the earlier part of the century new factories were established in great numbers along the coast, owing partly to the fact that the state of communications was such as to render transport over considerable distances an expensive proceeding. The low rate of duty then in force, by decreasing the incentive to malpractices, also rendered their number a matter of less importance than it now would be. Latterly the tendency has been to concentrate manufacture at the sites which afford the greatest facilities for distribution into the interior; a course which the highly-paid establishments allowed under the reorganized system has rendered absolutely necessary. The area occupied by the works in each case being usually small compared with that suitable for the purpose, there has been but little difficulty in effecting this concentration. In a few instances however, such as in parts of the Vizagapatam, South Arcot and Tanjore districts, this is not the case, and it has been found necessary to retain some small factories to meet a demand which could not be otherwise adequately provided for. Considerations connected with the state of communications have led to the same course being adopted elsewhere. On the west coast manufacture has long been in a declining condition, neither the soil nor the climate being

suitable for the production of salt of good quality; and it only survives in three small factories in the north of the South Canara district, the abolition of which is now under consideration. The area occupied by salt works may, roughly speaking, be set at 12,500 acres, almost the whole of which land is valueless for other purposes. A map showing the factories now in existence is excluded here by necessities of publication, but will be found in the collection of maps given with Vol. III.

603. MANUFACTURE.—Salt is manufactured in this Presidency solely by means of solar evaporation; the only requirements necessary to allow of a factory being established being the existence of a strata of tough impermeable clay, or the means of constructing one, and of a sufficient supply of brine. The former almost invariably exists in salt swamps, the process which creates these large low flats also favoring the deposit of stiff tenacious mud. The brine made use of is derived either from the sea, or from brine-pits and wells. In the former case, which is most common in the north of the Presidency and the Chingleput division, tidal backwaters usually furnish the source of supply. Each factory is covered with a network of small channels, all opening into one or more main channels communicating with the backwater or sea. These main channels are provided with appliances for retaining water at the highest possible level, so as to allow of a supply sufficient to last for several days being secured at spring tides. The retention of the water in the channels at the highest possible level is a matter of much importance, both in reducing the lift into the condenser and in rendering the existence of deep channels and heavy annual repairs thereon unnecessary. The natural features of the locality often facilitate the process by rendering it possible to include considerable areas low enough to be submerged at high tide within the system of dams, and thus exposing large condensing surfaces in addition to improving the supply of water available. In other cases the inclusion of large deep creeks brings with it also the latter advantage. The water from the small irrigation channels is baled into the condensing beds by means of picottahs or slung baskets, and the process of manufacturing then proceeds in the usual way. Brine-pits form a more economical source of supply, as the brine so obtained is usually highly concentrated, and in some cases even approaches saturation towards the close of the hot weather. This high degree of salinity greatly reduces the labor of raising the water into the beds, which constitutes one of the most serious items of expenditure in the manufacture of salt. The process of manufacture to be followed subsequent to the brine being raised to the level of the pans is when duly carried out that of allowing it to concentrate in a series of condensers until it reaches the degree of density at which salt begins to form (about 25° Beaume), by which time the less soluble impurities will have crystallized out; and then running it into small beds or pans, the flooring of which consists of hard tough clay, puddled and rammed so as to render it but little liable to disturbance by the manipulation of the salt when removed. The process of evaporation is allowed to continue in the pans until the point of crystallization is reached for magnesium salts which it is desired to remove. By that time almost the whole of the chloride of sodium has separated and exists in the form of a thin white coat of salt, partly covered by the residual brine. The salt is then raked up with a narrow piece of wood about two feet long, into the centre of which a long bamboo is fixed at right-angles to act as a handle. When skilfully used this instrument removes the salt with very little disturbance of the clay of which the bottom of the beds is composed, and by means of a few passes backwards and forwards with it, the particles of mud which adhere are washed out into the mother liquor. The salt is then collected in baskets and carried to the drying grounds. In practice this system is subject to great modifications, each factory having its own method, the result of custom. The most common faults which are allowed to occur in the process are the introduction of imperfectly-concentrated brine into the crystallizing beds; and this is aggravated when the depth to which it is admitted is insufficient to allow of the production of well-formed and pure salt; and the non-removal of the residual mother liquor. The accumulations of the magnesium salts which show themselves in the condensers after a few scrapings, if not removed, accelerate the deposit of sodium chloride, and as this fact is known to the manufacturers difficulty is experienced in securing its removal. The differences in the procedure adopted in each circle

and the varying state of the weather render it impossible to afford any information as to the number of crops of salt which may be collected during the season, but with a fairly perfect system scraping should take place once in from six to ten days. The yield in a good season varies from about 1,000 maunds per acre in the north to 4,000 maunds per acre in some of the most favorably-situated factories in the south of the Presidency. The division of the area allotted to each manufacturer into condensers and crystallizing beds is effected by means of small bunds of the tough clay referred to above. The proportion devoted to these two portions of the process varies much even where sea-water is used, the old factories having always an insufficient condensing area. In some of the factories most recently established a proportion of four to one has been adopted and is found to work well. Where pit brine is made use of it is impossible to lay down any rule of this sort, as the strength of the brine varies with the locality and the stage of the season. The most important point in the manufacture of salt lies in the formation of the crystallizing beds, on the impermeability and cleanness of the flooring of which both the quantity and quality of the salt produced chiefly depend. These beds are prepared by a tedious and often-repeated process of puddling with the feet, which is done at intervals of a few days during the earlier part of the season, and is aided in some places by the addition of mud or sand to the surface as the nature of the soil may render necessary. It must be repeated to a certain extent after about every third scraping. The manufacturers belong for the most part to the same class as the ordinary agricultural population, and are employed in cultivation during the wet weather. They are not however well off as might be expected under the circumstances, partly owing to the extreme poverty of the cultivable soil in the neighbourhood of most of the factories. The work of manufacture is severe and not only has to be performed in the hottest time of the year, but increases in direct proportion to the heat. The preparation of the pans usually commences early in January. The first salt is scraped some five or six weeks later, and manufacture is continued until stopped by the rains, which usually takes place about June in the north of the Presidency and in August or September in the south.

604. Monopoly System of Taxation.—Under the monopoly system salt can only be manufactured for sale to Government, and under the supervision and control of its officers. The right to manufacture is confined to certain areas called factories, and to the registered owners or holders of definite portions of the factories called sets of pans. The quantity, if any, to be manufactured at each factory is determined yearly by the head of the department, on consideration of the stocks in hand and probable requirements of the trade. The pecuniary rights of the manufacturers are no more than to produce this amount and deliver it at the place of storage in return for a price or contract rate called coodivaram, which varies from Rupees 6-5-0 to Rupees 26-12-0 per garce of 120 maunds. The proprietary rights of the manufacturers in the areas on which they conduct their operations are very various, and are intimately connected with the amount of coodivaram which they receive. In many cases their rights resemble full ownership; they are however always subject to the condition that the land can only be used for the manufacture of salt for sale to Government, and that with the permission of, and to the extent prescribed by, its officers. In most cases the question of tenure is involved in obscurity. In factories which have come into existence since Regulation I of 1805 was passed, the tenures are only based on custom and are not supported by legal enactment. All expenditure on the upkeep of works is borne by Government, the manufacturers being practically contractors who undertake to produce a certain amount of salt within factory limits and deliver it into store. The salt is stored at the expense and risk of Government, and sold at a rate equivalent to the duty for the time being plus the estimated cost of its production, which for the present has been fixed at an average rate of 3 annas per maund for the whole of the east coast., At Pondrauca in the Masulipatam division a slightly different system is in force. Spontaneous salt is produced in the swamps in its vicinity in abundance with but little artificial assistance, and is collected and removed to the platforms by coolies who receive a contract rate of Rupees 5 per garce for the work.

605. After being passed and estimated by the officers of the department, the salt is at once removed to drying grounds or the platforms on which storage is to take place: and there left until dry enough to be weighed into store, which is usually a month or so after scraping. It is then stored in heaps containing 1,200, 2,400, or 3,600 maunds each according to the extent of the sales. The factories of the Chingleput district are not conveniently situated as places for the storage and sale of salt; almost the whole of their produce is conveyed to Madras by canal, at the expense of Government, and stored in a depôt close to the Madras Railway and connected therewith by a siding. The additional cost which this entails is not inconsiderable, but it is a convenience and an economy to the large population in the interior who derive their supply from the depôt. The heaps, which stand on a rectangular base, are thatched with straw or palmyra leaves in the north of the Presidency, and covered with a thick layer of tempered clay in the south; the latter are found to afford sufficient protection during the short rains of that part of the country. The period during which the salt remains in store varies with the stocks available at each factory. A considerable loss is always sustained through wastage, regarding the extent of which it is impossible to lay down any fixed rates. A loss of 3 per cent. in six months, 5 in twelve, and a smaller proportion for longer periods is the average. Salt is sold at all monopoly factories except the Madras depôt in quantities of one maund and upwards. At that depôt the minimum has been fixed at 40 maunds. The minimum at excise factories is 25 maunds. Sales are conducted by petty officers, but all salt has to be removed in bags containing one or two maunds each, and a certain percentage of those in each consignment is tested by either the inspectors or assistant inspectors before it is allowed to leave the place of storage. A check on the accuracy of sales is thus imposed, without the waste of time which the actual conduct of sales would entail on the superior officers of the department were they to undertake it in person. A further precaution against dishonest practices is secured by the test-weighment of some of the heaps in store. Six months' credit is allowed to traders on deposit of Government securities sufficient to cover the value of the salt purchased. A large amount of capital has been drawn into the salt trade by this system, to the advantage of consumers in the interior. The amount for which a credit account can be opened has lately been reduced to Rupees 500, and transactions under the rules are increasing.

606. To obviate the heavy loss which the suppression of the use of salt earth, hereafter to be mentioned, would otherwise entail on the fishing classes, who have hitherto been accustomed to cure their surplus fish with it, enclosures have been opened along the coast for the sale of salt at very low rates. Operations are only allowed to take place within the enclosures. These have been highly successful. There are now 137 along the coast, in which 320,922 maunds of fish were cured during the past year. The salt is sold in these cases at prices varying from 6 to 12 annas per maund, the higher rates being confined to the West Coast where the cost price of the salt itself is very high. The success of the experiment has been greatest in Malabar.

607. Excise System of Taxation.—Under the excise system Government confines itself to the levy of a duty, at present fixed at Rupees 2 per maund, on salt leaving the factory; and does not interfere with manufacture or storage, except so far as is necessary to facilitate the collection of this duty by regulating storage operations, and by insisting on the works, on which large sums of public money have been spent under the old system, being kept in efficient repair. Expenditure on the repair of works for the purpose of manufacture and storage, for the protection of the factory from floods, and for preventing the removal of salt before duty has been paid and for facilitating that of duty-paid salt, is borne by the excise licensees, as the manufacturers are then called. The licensees are also charged with interest at 5 per cent. on the capital cost of all permanent works of the above descriptions which have been constructed by Government in former years. With the sale of the salt the officers of Government have no concern and the licensees are at liberty to charge what prices they think fit. It was hoped that this system, by fostering competition amongst the licensees of each factory, would improve the

quality and reduce the price of salt, but the results have not entirely answered expectation. At most factories the old manufacturers are poor and improvident and are so much dependent on the regular disbursement of coodivaram that they are unable to wait for the larger but deferred profits which would accrue to them under the excise system. They are consequently obliged to apply to capitalists, who purchase the whole season's produce during the process of manufacture. The licensees in addition to the interest referred to above are liable to the payment of rent for their holdings, but under recent orders on the subject this charge will become nominal.

608. IMPORTS, EXPORTS AND FRENCH SUPPLY.—The only coast district where no salt is manufactured is Malabar, but the outturn of the Canara works is very small; and both these districts are dependent on imports from Bombay and Goa. The imports were formerly undertaken by Government, but are now in the hands of private dealers who trade in salt as they would in any other article of merchandise. The restrictions placed on the carriage of duty-bearing salt in pattimars by India Act XVI of 1879 have now put an end to the import of any but the duty-paid article. Exports used formerly to take place to Calcutta, Chittagong, the Straits Settlements and Penang to a very considerable extent, surplus stocks being sold for the purpose at unremunerative rates. This trade was however destroyed by unnecessarily severe restrictions introduced to prevent abuses. Of late a more liberal policy has been adopted, and the grant of an allowance for wastage on the voyage offers prospects of an early revival of the trade with Calcutta. Similar advantages have however been refused to consignments to the Straits Settlements and Penang. Under certain conventions with the French Government arrived at early in the present century, no manufacture takes place within their settlements. They receive their supply from the British factories, and are bound to sell it at approximately the same prices as prevail in British territory. In return for these concessions they receive annual payments amounting to Rupees 4,41,600 in all. The greater part of Mysore and a portion of Hyderabad, the Central Provinces and Orissa also receive their salt supply from the Madras Presidency through the agency of private trade.

609. PREVENTIVE MEASURES.—The institution of a regular preventive force was one of the principal changes connected with the recent reorganization of the Salt Department. Madras Act I of 1882 gives very considerable powers to the officers of the Salt Department in cases connected with offences against the salt revenue, but the stringency of its clauses is tempered by the provision that prosecution shall only take place in each case with the sanction of the inspector in charge of the circle, before whom all offenders must appear in the first instance. Departmental orders direct the release with a warning of all very old, infirm and very young persons, of pregnant women, of offenders when the quantity of contraband salt concerned does not exceed one seer of illicit salt or five seers of salt earth, and persons who can make a reasonable defence on the ground of ignorance or inadvertence. More than half of the offenders charged have been departmentally released with a warning. During the past few years the persons dealt with have been as at foot.[3] Persons who have been departmentally released are seldom found to offend again, but should they do so they are held not to be entitled to the benefit of these rules. The whole Presidency, with the exception of a small portion of the Goontoor circle, has now been provided with preventive forces. The men are divided into parties of from five to eight peons under a petty officer to which

[3] STATISTICS OF PERSONS CHARGED FOR SALT OFFENCES.

——	Departmentally released.	Acquitted.	Convicted.	Total.	Remarks.
1878-79	......	1,311	8,252	9,563	* The figures for this year are not reliable. The totals were somewhat greater.
1879-80	......	1,238	9,678	10,916	
1880-81	......	1,633	6,854	8,487	
1881-82	......	1,602	7,002	8,604	
1882-83	7,168	* 496	* 6,534	14,198	
1883-84	6,101	505	6,827	13,433	

specified ranges are allotted, and their work is supervised by an inspector aided by one or more sub-inspectors. The necessity for these measures has been least felt in the Nellore and Chingleput divisions. Along the remainder of the littoral tracts prevention has been found necessary. In the interior prevention has been found most necessary in the Trichinopoly circle. Operations have been light in the Ceded Districts, where the matter was already attended to before the institution of regular preventive measures. The manufacture of saltpetre, which was formerly productive of considerable injury to the salt revenue, is now only allowed under license, and in some districts, as in Coimbatore, its regulation forms a considerable portion of the work of the preventive force.

610. STATISTICS.—The quantity of salt manufactured, imported and passed into consumption during the past five years is shown in the foot-note.[4] Particulars of the price of monopoly salt and of the rate of excise duty in force are also given in the same note. Particulars of imports are shown in the next note.[5] The receipts at the commencement of each decade from 1806, when the monopoly was first introduced, have been as shown below.[6] Receipts for 1883-84 amounted

[4] STATISTICS OF RECEIPTS AND EXPENDITURE OF SALT FOR FIVE YEARS.

—	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	Remarks.
	MAUNDS.	MAUNDS.	MAUNDS.	MAUNDS.	MAUNDS.	* The distinction of home and inland was abandoned in 1883-84. † Includes 10 maunds issued for the manufacture of glazed stoneware. ‡ The figures in these columns include imports.
Manufactured or imported	4,825,245	8,374,317	6,618,274	7,580,459	6,888,148	
Expended for home consumption	3,463,122	3,688,802	3,464,447	3,927,671	7,431,524	
Do. inland do.	2,734,501	2,654,413	2,743,084	3,135,599	*	
Do. fish-curing	5,653	8,979	10,457	16,011	† 55,225	
Do. supply to French Government	56,005	56,237	56,893	56,192	56,087	
Do. exportation	149,188	23,307	137,998	14,700	207,236	
Total ...	6,408,469	6,431,738	6,412,879	7,150,173	7,750,072	
Wastage written off	281,249	761,724	609,115	378,151	424,185	
Balance stock in hand at end of year ...	6,294,777	7,853,874	7,663,814	7,715,522	6,391,794	
Wastage to be written off	‡ 741,751	‡ 363,509	‡ 149,849	‡ 150,276	187,895	
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	
Government price of salt per Indian maund...	2 11 0	2 11 0	{ 2 11 0 2 3 0	2 6 0 2 3 0	0 6 0 2 3 0	
Excise and import duty	2 8 0	2 8 0	{ 2 8 0 2 0 0	} 2 0 0	2 0 0	

[5] STATISTICS OF SALT IMPORTS FOR FIVE YEARS.

—		1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	Remarks.
Imports	Duty bearing ...	60,084	3,726	857	735	1,117	
	Duty paid ...	397,792	529,978	515,862	740,160	854,991	
	Total ...	457,876	533,704	(a) 516,440	(b) 740,895	856,108	

(a) Inclusive of 24 maunds adjusted subsequently and exclusive of 2,329 maunds purchased for fish-curing purposes.

(b) Exclusive of 5,000 maunds purchased for supply to French Government and 4,058 maunds for fish-curing yards.

[6] RECEIPTS BY DECADES FROM 1806.

—	Revenue.	Monopoly price per maund.	Excise duty per maund.
	RS.	RS. A. P.	RS. A. P.
Fasli 1216 (A.D. 1806-7)	19,94,439	0 9 4	
" 1226 (" 1816-17)	25,21,129	0 14 0	
" 1236 (" 1826-27)	28,30,585	0 9 4	
" 1246 (" 1836-37)	36,42,403	0 14 0	
" 1256 (" 1846-47)	46,74,928	1 0 0	
" 1266 (" 1856-57)	52,67,498	1 0 0	
" 1276 (" 1866-67)	115,75,229	1 11 0	
" 1280 (" 1870-71)	126,05,009	2 0 0	
" 1290 (" 1880-81)	156,43,359	1 11 0	2 8 0

to Rupees 138,55,159, but the balance to be collected on account of credit transactions had increased by Rupees 5,24,976, and the collections of duty in Bombay on salt exported to Madras amounted to Rupees 17,09,982 (of which Rupees 1,14,946 were collected in Goa), making the total contribution of the Presidency for the year Rupees 160,90,117. Excluding all expenditure which could not be saved by the Government entirely disconnecting itself from all manufacturing operations and confining itself to the levy of excise and customs duty and prevention, the cost of monopoly salt during 1883-84 was as shown in the next note.[7] The fluctuations in the Government selling price of salt are shown in the next note.[8] The price at which it is retailed varies with facilities for communication, but along the coast and for a few miles inland it may be said to sell retail for about from Rupees 2-8-0 to 3-8-0 per maund. Allowing for salt which passes out of the Presidency according to the best information available, the rate of consumption per head, corrected for increase of population, was as follows during the past year:—for the whole Presidency excluding Native States, 15·72 lb.; for the four northern districts, 13·22 lb.; for the West Coast, 17·78 lb.; for the remaining districts, 16·27 lb.

ABKARRY.

611. INTRODUCTION.—The word abkarry [1] has been subject to several variations of definition. In parts of Southern India the abkarry tax has within moderately recent times included duties on eating-shops, gaming-houses, and itinerant jugglers. In Mysore the sale of arica or betel-nut was till 1838 included in

[7] COMPONENT ITEMS OF COST OF GOVERNMENT SALT.

		Per maund. A. P.
Land assessment ...		0 0·1
Payment to manufacturers		1 7·2
Works for salt manufacture and storage	Interest ...	0 1·8
	Repairs ...	0 0·9
Conveying and storing salt		0 3·9
Miscellaneous expenditure		0 0·4
Interest on value of salt ...		0 2·7
	Total ...	2 5·0

[8] TABLE SHOWING INCREASE OF SELLING PRICE OF GOVERNMENT SALT DURING CENTURY.

Years.	Price. RS. A. P.	Years.	Price. RS. A. P.
1805	0 9 4	1866	1 11 0
1809	0 14 0	1870	2 0 0
1820	0 9 4		2 0 0
1828	0 14 0		2 2 0
1843 to 1845	1 8 0	1874	2 3 0
	1 0 0		2 4 0
	1 0 0		2 5 0
1859 to 1861	1 2 0	1878	2 11 0
	1 6 0	1882	2 6 0
	1 8 0		2 3 0

[1] SKETCH HISTORY OF ABKARRY IN THE PRESIDENCY.—*Early use of Intoxicants.*—From the most ancient books of the Hindoos, as well as from the hereditary traditions of certain classes, it may be learnt that intoxicating liquors have always been manufactured and used in India. Distillation was practised more than three thousand years ago by the ancient Aryans at any rate. They made an inebriating juice of the Soma or "moonplant," which they employed both for sacrifices and for domestic use. The Soma drink was made from the juice of a creeper (Sarcostemma viminalis), diluted with water, mixed with barley meal, clarified butter, and the meal of wild rice, and fermented in a jar for nine days. The starchy substance of the meal supplied the material for the vinous fermentation, and the Soma juice played the part of hops in beer. Its effects were those of alcohol. In the Institutes of Menoo regulations for the classes of distillers and vendors of spirits are laid down with much particularity. So again there can be no doubt that from time immemorial the Dravidians and aboriginal races have largely distilled or fermented strong drink from the cocoanut, sago, date, and palmyra palms; from sugar and rice; and in the forests from the dried flowers of the Mohwa or Bassia latifolia. That the early European navigators brought with them the custom of drinking intoxicating liquors cannot be disputed. Canter Visscher, writing about A.D. 1723, says that "for strong drink in general the Portuguese have no taste; the Dutch, on the contrary, drink to such an extent as to expose themselves to the reproaches of the Portuguese and the natives; the English are liable to the same imputation." But the addition thus made to the natural habits of the people must have been very slight. The manufacture and use of intoxicating liquors is quite indigenous. Bartolomeo speaks of an attempt of the Rajah of Travancore in 1787 to prohibit the use of cocoanut brandy under pain of the confiscation of property; and the smoking of ganja hemp and use of opium were at the same time forbidden. Tippoo Sultan of Mysore issued a mandate that all the palm trees from which toddy was extracted should be cut down. These measures could not, however, have been long maintained when so large a proportion of the people used the liquors and drugs, or were

the abkarry contracts, and similarly that of tobacco as late as 1850. Even at the present day it is not unusual to define abkarry in Southern India as including the taxes raised on various intoxicating drugs, such as opium, ganja and bhang. The term will be taken for the purposes of this article to mean merely the revenue

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dependent on the profits of their manufacture and sale. It may be added to these reflections that native stimulants are probably more injurious in their effects than European liquors.—(2) *Abkarry revenue under Hindoo and Mahomedan Governments.*—The practice of deriving a revenue from a tax upon the sale of intoxicating liquors appears to have been a very ancient one among Hindoo Governments, and the Institutes of Menoo above mentioned point to an excise duty upon liquors and other articles, as a proper mode of raising funds for the purposes of government. The Khammary or tax upon the sale of intoxicating liquors, will be found in the list of taxes which were remitted by the emperor Acbar. (3) *First measures by British in Southern India.*—In the earlier years of the century considerable discussion took place as to the best mode of raising a revenue from spirituous and fermented liquors in this Presidency, and various regulations on the subject were framed and considered. In 1803 the Government referred to the Board of Revenue a regulation prepared for the Bengal Presidency, under which it was proposed to levy the tax on the sale of arrack, or country-made spirits, as a daily duty upon stills, at rates varying with reference to the ascertained sizes of the stills. This system is now known as the "outstill" or "monthly tax" system, the daily rate being merged into a monthly payment. The Board of Revenue did not consider the plan suitable to Madras, where the practice of letting, in farm, the exclusive privilege of manufacturing and selling spirituous and fermented liquors in a district or sub-division was generally in force, and they proposed an alternative regulation for the taxation of arrack, toddy, and foreign spirits under the latter mode of management. They reported to Government that there would be difficulty in inducing people to take out licenses for single stills, and that the farming system had the effect of inducing more respectable people to embark in the spirit trade, as the magnitude of the operations in a large farm necessarily involved the possession of capital and some administrative capacity. In reply to some objections made to their proposals, which also included the taxation of toddy or fermented palm-juice, betel and tobacco, they urged that the levy of an assessment upon these three articles as well as upon spirits was warranted by the common law of the country. In two despatches received from the Home Government in 1805 and 1806 on the subject of the Board's proposals, strong objections were taken to "the principle of farming out to individuals any article of taxable consumption," and the direct management of the revenue derived from arrack and toddy was urged upon the local Government. These observations were referred to the Board of Revenue, who acknowledged the justice of the Court of Directors' objections to farming the revenue on general principles, but considered that they rather applied "to articles of general consumption and evident necessity, and not to the renting, as in the present case, under restrictions, an article of luxury by no means necessary, nay even detrimental to the public weal." They also explained that their object was to "restrain and regulate" the consumption of spirituous and fermented liquors, and observed that such a course was in accordance with the immemorial practice of Asiatic Governments, which in some cases, Mysore for instance, had gone so far as to entirely prohibit the use of intoxicating drinks. They considered that the system of detailed licenses (the outstill or monthly tax system), as being contrary to custom and therefore distasteful to the old renters, was less likely to produce revenue than the farming system, but they urged that the health and good order of the people were of far more importance than the augmentation of the revenue, and that undoubtedly these objects would be more surely promoted by a system which insured the employment of respectable persons, rather than one which would place the entire liquor trade in the hands of petty distillers and shop-keepers, whose irregularities it would be impossible to control, and from whom the punctual realization of the revenue would be by no means easy. These opinions of the Board were very nearly identical with those expressed by Sir Thomas (then Colonel) Munro, Collector of the Ceded Districts, in a letter subsequently addressed to them on the subject. (4) *First Regulation.*—Eventually the Government acceded to the Board's views, and early in 1808 a Regulation, Madras No. I of 1808, was passed mainly in the sense desired, though, owing to doubts in regard to the propriety of taxing toddy, the operation of the enactment was restricted to the manufacture and sale of arrack and the sale of foreign spirits. The regulation provided that the annual rent of the exclusive privilege of selling foreign spirits and of manufacturing and selling arrack should be farmed; and that the places where distillation and sale should take place, as well as the retail prices at which the liquors should be sold, should be determined by the Collectors of districts in communication with the Board of Revenue. In addition to this system of management, Section 17 of the Regulation authorized the licensing of separate stills as an alternative mode, and when the Regulation was sent to the Collectors of districts they were recommended to make a trial of both plans of management. The licensing or outstill system however was adopted in Nellore, South Arcot and Trichinopoly only, and there merely for a few years; in 1815-16 the renting system was again in force throughout the Presidency, except within the abkarry limits of the town of Madras, where the arrangements were special. The rents, as a rule, included in practice the exclusive privilege of the sale of fermented toddy as well as of that of arrack; there was no legal sanction however for this course, and therefore, as might have been expected, difficulties arose in regard to the realization of the former portion of the revenue. The regulation was also found to be defective, as providing no legal punishment for breach of license. (5) *Second Regulation.*—The amendment of the regulation was finally resolved upon in 1819, and in the following year, Madras No. I of 1820 was enacted, which rescinded No. I of 1808, and brought under a regular Government monopoly the tax on "rum, arrack or other fermented liquors," providing that the exclusive manufacture and sale of these liquors should either be retained under the direct management of Government, or be rented out by them to farmers. The new regulation permitted renters to sub-rent their farms and to recover their dues from the under-renters by summary process. Special provisions against the use of noxious ingredients in the manufacture of spirits and against irregularities in the liquor shops were introduced in this enactment. It also gave powers to the Board of Revenue to frame rules from time to time as occasion might require, for regulating the sale of all spirits whether country or foreign, and of toddy or other fermented liquors; for determining the places at which stills and shops should be erected, the retail rates of sale to be established, and the measures to be used; and generally for regulating matters relating to the detailed management and control of distilleries and shops. Passes were required under the regulation for liquor in transit in excess of one seer or bottle. In 1841 the question whether a higher rate of taxation could not be imposed on arrack and toddy was considered, but the proposal was eventually abandoned, the district officers being merely enjoined to see that no liquor was sold below the minimum prices prescribed. (6) *Madras Town Act.*—The special abkarry of the town of Madras was provided for in 1852 by a special enactment, India Act XIX of 1852, which arranged for the direct management of the revenue by the Collector of Madras under the orders of the Board of Revenue. (7) *General Act of* 1864 *and its amendment in* 1879.—The abkarry revenue of the mofussil was managed under the old Act of 1820 for forty-four years, or until the present Abkarry Act, Madras No. III of 1864, became law. The immediate cause of the enactment of the Abkarry law of 1864 was a ruling of the late Sudder Court to the effect that foreign imported wines or beer did not come within the scope of Regulation I of 1820. This difficulty was met in the new enactment, and a few other amendments of the law were at the same time made. Among other things, powers were taken to levy the tax on spirits as an excise duty on the quantity manufactured; to abolish the farming system and to throw open the manufacture and sale of intoxicants subject to the payment of fees or an excise duty on the quantity manufactured or sold; and to suppress the home manufacture of toddy where the privilege was abused or where it was likely to be used as a cloak for illicit sales. Act III of 1864 was amended by Act V of 1879. The amendments were principally in the direction of more stringent measures, for the repression of illicit distillation by rendering the mere possession of implements of manufacture and illicit liquor a penal offence, and the enlargement of the powers of the police and heads of villages for the detection of offences connected with the Abkarry law; increased facilities were given to sub-renters for the recovery of their dues from shopkeepers, and the Board were empowered to prohibit sub-renting altogether where such a step might seem

derived from the manufacture and sale of intoxicating liquors. Its literal meaning is manufacture of waters, that is to say of strong waters. The principles recognized by the Hindoo Governments of Southern India in the administration of this branch of revenue are not ascertainable. In the extreme south, native rule has always

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desirable. The Act also empowered the Government to exclude by notification the tract known as the "outside limits" round Madras from the operation of India Act XIX of 1852, so as to enable this tract to be annexed to the Chingleput farm. (8) *Experimental Excise system of administration.*—The Experimental Excise system of administration, as it has been termed, originated in 1869 in the Ganjam District. The Collector reported that the abkarry rental of that district had fallen to Rupees 68,980, and that the renters were known to make large fortunes, "the leading merchants combining, it was believed, to keep down the biddings on condition of all sharing in the profits." He added that Mr. Minchin, Manager of the Aska Sugar Factory, who desired to take the abkarry rent of the district on a new system, estimated (as he thought moderately) the total value of the liquor consumed in the district at Rupees 3,41,000, of which, under the system of management which Mr. Minchin proposed, the Government might be expected to realize about half as excise revenue. Mr. Minchin accordingly, on this recommendation, supported by the Board of Revenue, became the renter of the exclusive privilege of manufacturing and selling country spirits in the district for three years, on payment, instead of a fixed rent, of an excise duty fixed at the following rates on all spirits issued from his distillery, viz., spirit 60° under proof, Rupees 0-12-0 per gallon; spirit 30° under proof, Rupees 1-8-0 per gallon; proof spirit, Rupees 2 per gallon. Mr. Minchin was to pay the cost of the Government excise establishment to be placed in charge of his distillery, and was to be allowed 5 per cent. for ullage and wastage of spirits. He was also to sublet the toddy of the district in farms, paying to Government half the amount of his sub-rents. Neither Mr. Minchin's nor the Collector's expectations as to the recovery of the abkarry revenue of the district were realized. Notwithstanding the financial failure however of the experiment, the Board of Revenue, after it had been three years in operation, did not consider its results unsatisfactory. There had been no loss of revenue as compared to that obtained in the year before its adoption, the people had been supplied with good liquor, the revenue had been punctually realized without trouble or anxiety, and there was every expectation that in future years it would improve. When alluding to a proposal made by Messrs. Parry and Company in 1872 to hold the South Arcot District on somewhat similar terms, the Board further expressed themselves as follows:—"the Board are strongly of opinion that the excise system, when trustworthy distillers can be found, as in the present case, is far preferable to farming out the monopoly by public competition, because the actual consumption of spirits in the district is now ascertained in this way, and competition constantly results in such reckless bidding that the renters have to exhaust all possible devices to get a large amount of liquor sold and to importune the Board for frequent remissions, whilst they are often ruined in spite of all, and the security of the revenue is a matter of unceasing anxiety. The comparative advantages of the excise system are so patent that the Board think it well worth while to run a small financial risk in order to obtain them." Eventually the Government authorized the Ganjam and Vizagapatam Districts to be rented for three years to Mr. Minchin, the South Arcot District to Messrs. Parry and Company, the North Arcot District to Messrs. Corbet and Company, and the Chingleput District to Mr. T. Pritchard, on the new system. The rates of duty for Ganjam and Vizagapatam were fixed at the same figures as those in Mr. Minchin's first contract, but he was required to pay over to Government 75 per cent. of his toddy rents instead of 50 per cent. In North Arcot, South Arcot, and Chingleput the excise duty was fixed at Rupees 1-12-0 per gallon for spirits 30° under proof, and it was settled that if it appeared that the sums to be paid to Government by the renters in any year would be likely to fall short of certain minimum amounts, it should be open to the Government to cancel the lease by giving three months' notice. The "experimental excise system" may be thus summarized. It gave the monopoly of manufacture and sale in a district to one person or firm who paid a fixed excise on each gallon of spirits leaving the distillery, and sold it under the regulations and restriction as to number of shops, minimum price, &c., of the farming system, with the further precaution that dilution was not allowed. This system was better than the farming system, in that it gave Government the means of ascertaining the exact quantity of spirit consumed, and because the quantity consumed being taxed at so much a gallon the inducement to fresh consumption was lessened. The system was unsuited to parts of the country which were so thinly populated and inaccessible that spirits which had paid a reasonable excise at a distant distillery could not be carried into them and sold at a remunerative rate. From the returns made it appeared that the cost of making and distributing arrack varied as follows under this system. For spirit 30° under proof:—Ganjam, Rupees 1-3-2 per gallon; Vizagapatam, Rupees 1-5-2 per gallon; Chingleput, Rupees 0-13-9 per gallon; South Arcot, Rupees 1-1-3 per gallon. For spirit 20° under proof:—North Arcot, Rupees 1-2-0½ per gallon. Excluding the excise duty then Rupees 1-4-0 per gallon in the Northern Districts and Rupees 1-2-0 per gallon in the Southern Districts—other than North Arcot—was the lowest rate at which it would pay the distiller to sell; and, allowing a minimum of two annas a gallon for the retail profits which went to the salesman, the minimum retail price to the public might be taken as Rupees 1-6-0 in the Northern Districts and Rupees 1-4-0 in the Southern Districts (except North Arcot), plus the excise. In North Arcot, where the spirits were 20° under proof, the minimum price might be taken as at Rupees 1-5-0, plus the excise. The average retail prices actually charged after the duty had been paid were Rupees 3-11-4 in Chingleput and Rupees 4-4-0 in North Arcot, out of which the distiller obtained a profit of about Rupee 1 in the former case and Rupees 1-2-0 in the latter. (9) *Second Excise system of administration.*—The Board of Revenue subsequently made a recommendation to Government, that what may be termed "the second or improved excise system" should be introduced into the Ganjam, Vizagapatam, Chingleput, North Arcot, South Arcot, Nellore, Salem, Trichinopoly, and Neilgherry districts on contracts extending to three years, from the 1st July 1875, and that an improved farming system should also be adopted in the other districts of the Presidency. The Government sanctioned these proposals, and, after some discussion, the districts of Coimbatore and Tanjore and the town of Bellary were added to the list of those into which the new excise system was to be introduced. It was also settled that the toddy farms should in these cases be separated from the arrack contracts. The main differences between the improved excise system and the experimental excise system were:—"a" that under the former the duty on spirits was fixed with reference to the actual selling price of spirits in the districts concerned, instead of being an arbitrary rate; "b" that the contractors were not permitted to sell spirits beyond a fixed maximum price, in order to prevent their securing to themselves a large profit on a small and easily-managed consumption to the detriment of the excise duty, and the neglect of the supply of outlying tracts of country; and "c" that a minimum guaranteed revenue for each district was arrived at by tenders in the open market, so that a public estimate might be occasionally obtained of that normal consumption of spirits in each locality upon which the State is entitled to levy its excise. The improved farming system required that all spirits should be sold at certain specified strengths, and at retail rates between certain specified minima and maxima. It also provided, as far as possible, for the manufacture of all spirits at central distilleries, subject to Government inspection and control. (10) *General view of the recent Excise system.*—The excise system till quite recently prevailing, and arrived at by the steps above detailed, may be thus summarized. The monopoly both of manufacture and of sale in each district was assigned to a single contractor, who had to pay duty at a certain rate on each gallon issued from the distillery, and who further guaranteed to Government a certain revenue settled by competitive tenders. Maximum and minimum prices were fixed within which the contractor's licensees in the shops were bound to sell to consumers. The range of price permitted was 8 annas per gallon. There was a surcharge of duty at 8 annas a gallon payable on spirits sold in municipal towns; and for such spirits maximum and minimum prices were allowed in excess of the ordinary rates by 8 annas a gallon. Higher prices being possible in the towns than in rural tracts, higher duty was thus obtained. The imposition of a maximum price was intended to prevent the contractors from seeking to obtain all their profits by enhancing prices in the towns, and to give them an interest in affording proper facilities of supply to, and preventing illicit supply in, outlying tracts. The work of prevention of illicit consumption was supposed to be provided for by the contractors. In adjusting the maximum and

been tolerant of the use of spirituous liquors, but the revenue raised by it was not in former days considerable. The old Hindoo Governments manufactured and sold ardent spirits themselves, and kept the sale of fermented palm-juice under their own immediate supervision. The excise administration of England has not much

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minimum prices, which were fixed by Government, allowance was made for cost of spirits, excise duty, cost of distribution within the district, charge for administration and prevention, and profits of renter and retailers. The leases were for periods of three years. This, it will be observed, was a system of large monopolies artificially regulated. In its favor is to be said that it was superior to the absolute farming system, which it superseded and under which knowledge of the consumption and regulation of the taxation were unattainable; that it led to concentration of manufacture and the use therein of improved appliances and cheaper methods; that the use of unwholesome materials in manufacture became impossible; and that the revenue was got in without risk or difficulty. In other respects, it failed to secure the advantages expected from it. The renters did not give adequate facilities for supply in outlying tracts, and closed a large number of shops previously existing; they almost invariably charged the highest price allowed under their contracts; they reduced the profits of the retailers to such an extent that these dealers were forced to seek remuneration in illicit practices, which in such hands are specially dangerous to the revenue and difficult to detect; they did little for prevention; and they looked entirely to their own profits and not at all to the interests of Government as hoped. The guarantee system also broke down. It was anticipated that the guarantees which were to operate as a stimulus to the renters to work for revenue as well as for their own profit, would be settled by competition and ensure good management; but the large firms and capitalists who alone can embark in the business did not bid against each other. The guaranteed revenues consequently became so low that the duty was practically paid on quantities issued, which the monopolists were scarcely concerned to extend. According to the accounts furnished by the renters themselves, their profits for the year 1883-84 were 21·47 per cent. on the arrack revenue realized by Government in the excise districts. (11) *Changes effected in* 1884.—Under these circumstances the Government resolved on certain changes. The object in view was to raise the taxation on country spirits, which is now in most districts considerably below the import rate, up to that level; such being the maximum attainable. The extent to which this is possible at present varies in different parts of the country with the habits of the people, the price which they can pay, and the facility with which illicit spirits can be made or sold with impunity. In some places, chiefly towns, it is possible at present without inducing illicit manufacture to obtain prices which admit of the import rate of duty being paid; and until this level is attained everywhere, there must be varying rates of price and of taxation. The problem is to devise a system which shall allow of sufficient range of rates, while affording reasonable security that the highest possible rates shall be reached in each locality. This requirement is satisfied by the system now adopted. The taxation on spirits is divided into two parts, one fixed and one fluctuating. The first is taken in the shape of fixed duty, when the spirits leave the distillery; the second in the shape of a lump sum for the privilege of vend in the locality such lump sum being fixed by public auction. The holder of the privilege will raise the price if he can; and, if successful, competition will at the next auction convert his profits into duty payable to Government. The proportion which the fixed bears to the variable taxation is now evidently too low; but it is hoped that this will be corrected when the next contracts are entered into. The next change of importance which has been effected is the separate disposal of the privileges of manufacture and sale, which under the old excise system were granted in one monopoly. The concentration of the manufacture has been retained. The whole of the spirit required for each district is still made at some large distillery which, as a rule, is within the district limits. In some cases however the manufacturers deliver liquor made elsewhere at a central depôt in the district where it is excised and issued to the vendors. Except in some special localities the vendors pay Rupees 2 per gallon on removing the spirits; and the supply monopoly is given to the tenderer who, by making the spirits most cheaply, is able to offer to Government the highest share out of this charge. The above remarks apply only to those districts in which the monopoly of the privilege of supply is still granted. In a few localities, however, what is known as the "free-supply" system has been started as an experiment. Its essence is that all licensed distillers are allowed to compete for the custom of the vend monopolists, who can supply themselves where they please, paying to Government a fixed sum per gallon. This system promises to be so successful that it will probably be largely extended on the conclusion of the current contracts. There has been ample competition, and the system promises a solution of the difficulty attending monopolies of supply, viz., that of adapting the spirits to the consumers' tastes. It should also foster scientific manufacture, as such will, by superior cheapness, beat country stills out of the field. The distilleries will still be under complete supervision, while the cheaper manufacture will advantage Government by leaving a larger margin out of the price for Government duty. In regard to sale, the reforms introduced have been devised with a view of getting rid eventually of the monopoly middlemen and of exclusive privileges, so far as the abolition of such privileges is consistent with the maintenance of restriction on the number of shops. It is not possible to abolish middlemen all at once, and the first step in the transition from the large district monopolies to single shop rents was obviously to reduce the size of the areas in which the privilege of vend is assigned. Accordingly the exclusive privilege of sale has been disposed of by auction, generally by talooks, but in certain tracts where the shop sales were large and where the class of shopkeepers was more intelligent and substantial, the shops have been sold separately and the shopkeepers left to supply themselves from the competing distillers in the free-supply tracts, and from the talook vendors (who are bound to supply within a fixed, maximum price) in other places. The reduction in size of the sale monopolies should benefit the revenue, as it admits to the business a class of smaller capitalists among whom a really sound competition can be set up, instead of the often false competition under which the district monopolies of supply and sale were disposed of under the old excise system. These smaller capitalists should do the work more cheaply than the district monopolists, and their employment therefore should leave greater scope for enhancement of duty. They should also, as a rule, be men of greater local knowledge and be more valuable for detection of illicit supply, working as they will for their own interest, than the hired servants of the district renters. Their local knowledge should enable them to form juster estimates of the adequacy of the present supply where the excise renters have allowed the number of shops to be reduced. It is expected that when the current contracts run out, it will be possible to reduce the areas still further, and to dispense with talook vendors in many more places. The attempt to regulate retail prices has been given up, and the adjustment has been left to supply and demand though a minimum price is still prescribed in compliance with the existing law. The present tendency of prices is to enhancement, as the vendors endeavour to raise them as high as they can; but excessive enhancement is not a matter to be regretted for the resulting restriction in the consumption is to the benefit of the people, nor can the price of country spirits advance beyond that at which imported or fully excised spirit can be sold. At the same time, vendors will be able to reduce prices in places where this measure is necessary. Prices may be left to settle themselves, and whatever price is proved to be attainable, Government will get the benefit of it when the contracts are next put up to auction. As to strength, no spirits are allowed to leave the distilleries at more than 20° under proof, without payment of full excise duty, i.e., Rupees 4 per gallon at proof strength or less. Even though such be paid, these spirits are not allowed to be sold except in foreign liquor shops. It is considered unnecessary to interfere with the strength at which spirits are sold in such shops, as even if diluted to enable them to compete with country spirits they will still have paid full proportionate duty. But the case is different as regards country spirits. To prevent them from competing with European spirits, the strength is limited to 20° under proof and under; and the strengths at which they may be sold are fixed at 20°, 30°, and 60° under proof and no others. The object is to free European spirits, which are usually sold at strengths above 20° under proof, and which are, as a rule, consumed by classes well able to pay full duty, from the competition of under-taxed spirits issued and sold at lower strengths; to prevent adulteration and dilution by the shopkeepers; and also in order that means may be available for detecting such practices and (still more important) the sale

analogy with Indian abkarry. In England a large class of vested interests has grown up in advance of action by Government, and though this is checked to a limited extent and an enormous public income is derived therefrom of nearly a third of the Government revenue, the trade is essentially a private one. Legislation on the liquor question in England is mainly concerned with arrangements of a police nature, and general principles are necessarily to a great extent in abeyance. In India the Government has had the advantage of beginning with a monopoly resting in their own hands. Further the amount at stake is much less, in Madras little more at the present day than a twelfth of the annual Government revenue. It has been possible therefore more or less to examine first principles, while proceeding with the administration of the revenue. In this the Indian Governments occupy the same position as has been attained in Sweden by the self-denial of the community; who have voluntarily placed an almost absolute controul over excise in the hands of the Government. Abkarry revenue in India is administered on the following principles; which may be described as consisting of two principles, and two counter-principles. First it is held that the practice to be controuled is a dangerous luxury, therefore its regulation is a legitimate function of the Government, especially when they find it already placed in their hands by the traditions of the country. Secondly the most efficient way to regulate the practice is to take steps for raising a revenue upon it, as taxation is that which most intimately

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in the shops of illicitly-made spirits. Nearly all the shopkeepers know how to distil; but with the rude appliances which alone they can command they can hardly make the higher strengths 20° and 30° under proof at all, and they cannot regulate the strength with sufficient accuracy to escape detection. If it were certain that illicit distillation were absolutely impossible, the regulation of strength might perhaps be dispensed with. The last change of consequence is the reduction of the period for which the exclusive privileges are to run. It used to be three years; in 1884 the period was made eighteen months so as to conclude with the official year 1885-86, but thereafter the contracts are to be annual. The object in view is to enable Government to bring into operation and speedily to benefit by any improvements in the system which experience may suggest, and to expedite the process of levelling up the taxation on country spirits to the import rate. It was thought that the shortness of the period would prevent adequate bids at the auctions; but it seems that with small contracts, such as those for talooks and shops, a year is long enough. Such at least is the conclusion to be drawn from the sales (for a year only) of the toddy and rented arrack leases which in 1884 produced an increase of 5½ lakhs or more than twenty per cent; of the arrack contracts then disposed of which sold for eighteen months at an increased revenue of nearly 11 lakhs a-year or about fifty per cent.; and of the toddy and rented arrack farms sold in 1885 and from which an increase is expected of about seven lakhs or about twenty per cent. upon the large increase already secured in 1884, only a year before. (12) *Changes now imminent in the law.* A Bill for the consolidation and amendment of the Abkarry laws is now pending before the local Legislative Council and will shortly be passed. Its principal object is to improve the administration by the appointment of a Commissioner of Abkarry, who will have the full controul of the Abkarry revenue and under whose orders the Collectors of districts and their subordinates will be placed, so far as their duties relate to the Abkarry. For economy's sake, it has been decided that the appointments of Commissioner of Salt and of Abkarry Revenue shall be held by a single officer, and that the preventive action necessary for the protection of the Abkarry shall be entrusted to the preventive agency already entertained throughout the Presidency for the protection of the Salt Revenue. The Bill provides the necessary powers. It also legalises the levy of the toddy revenue by the imposition of a tree-tax and authorises the framing of such rules, to have the force of law, as Government may from time to time find necessary for the regulation of the details of the administration. The object of the Bill is, in short, the improvement of the revenue by the concentration on the subject of the attention of a single responsible officer of standing and experience; by the power, under the rules, of varying its treatment as circumstances may require; and by the substitution for the irregular and imperfect preventive action of the contractors of the uniform and persistent pressure of a highly organized and well paid department of the State. Provision is also made for the regulation and repression by taxation of the use, hitherto quite unrestricted, of such intoxicating drugs as ganja, &c., which are highly injurious both to the moral and to the physical well-being of the people. (13) *Progress of the revenue during the century.*—In the year 1800-1, the amount realized by the abkarry throughout the Presidency was little over two lakhs of rupees, but in 1807-8 it had risen to upwards of six lakhs, and during the following three years it rose to nearly nine lakhs. From that year up to 1832-33, when the revenue stood at upwards of 18 lakhs, there was a steady annual rise except in 1824-25, which was a year of scarcity, and when a check was received which lasted for the five following years. In 1832-33 the average price of unhusked rice of the second sort rose from 66 seers to 45 seers per rupee, and in the following year to 36 seers. During this period occurred a very serious famine in Goontoor and the other northern districts, and the effects were at once visible on the abkarry collections, which fell from 18 lakhs to 16 lakhs, and then to little over 14 lakhs. Though prices fell subsequently to their former rates, the abkarry revenue did not recover till the year 1842-43, when it stood again at a little under 18 lakhs. From this year up to 1855-56, when the revenue touched 22¼ lakhs, there was a regular increase, year by year, except in the two years of scarcity, 1846-47 and 1854-55. The abkarry revenue rose from the 22¼ lakhs noted above to upwards of 30 lakhs in 1860-61, to nearly 42 lakhs in 1865-66, and to nearly 61 lakhs in 1869-70. In these fourteen years the revenue increased nearly threefold. The greater part of the increase was owing to the enhanced taxation on spirituous and fermented liquors resulting from the keen competition among abkarry farmers at the different auction sales, but it was also due to increased consumption. In 1875-76 the abkarry revenue amounted to 65 lakhs. In the two following years it decreased on the average by nearly fifteen lakhs owing to the famine of 1876-78. In 1878-79 it recovered to nearly 61 lakhs. The actual collections since 1870 have been as under:—

	RS.		RS.
1870-71 (fasly 1280)	57,05,529	1878-79 (fasly 1288)	60,88,810
1871-72 („ 1281)	58,75,650	1879-80 („ 1289)	57,52,555
1872-73 („ 1282)	60,27,818	1880-81 („ 1290)	55,63,790
1873-74 („ 1283)	60,71,260	Last nine months of 1881-82 ...	46,91,553
1874-75 („ 1284)	59,36,752	1882-83	59,80,965
1875-76 („ 1285)	65,08,843	1883-84	59,84,123
1876-77 („ 1286)	52,28,535	1884-85	70,41,341
1877-78 („ 1287)	48,52,682		

touches the people. There is in fact no impropriety, subject to considerations hereafter to be mentioned, in the Government aiming at the greatest net gain to themselves which may be realizable. In raising thus the price of the article above its natural trade value, the Government tax the purchasers for the benefit of their fellow citizens; but this is legitimate, considering the nature of the commodity purchased, as above-mentioned. Thirdly however there is the counter-principle that the agency employed by the Government in these measures should not be such as to stimulate the practice while nominally repressing it by taxation. And fourthly there is another counter-principle, that it is useless to push taxation so far as to run the risk of thereby encouraging illicit usages, in other words of smuggling. To follow these last two considerations in all their ramifications is a work of considerable labour and delicacy, and forms the basis of the numerous details involved in the administration of the abkarry revenue. The question of agency in particular, such as shall tax without creating trade, underlies all the Government measures of legislation and administration connected with the subject. To ascertain the limit of excise taxation is also a difficult financial question, involving an examination of the varying conditions to be found in different parts of the country. The use of stimulating and intoxicating liquors arises inevitably out of the increase of wealth and intellectual labour, and there is no reason to suppose that the administration of the Madras Government has on the whole done otherwise than to wait upon and follow the natural propensities of the population. The increase in abkarry revenue in the native-ruled state of Travancore has in the last half century run to a great extent parallel with that in the Madras Presidency.

612. SOURCES OF REVENUE.—The present sources of the abkarry revenue in this Presidency are first the tax upon the manufacture and sale of country-made spirits or arrack; secondly the tax upon the sale of date-toddy, palmyra-toddy, and cocoanut-toddy; thirdly the proceeds of the sale-licenses for the sale of Foreign spirits and wines, and of beer; and fourthly the receipts from fees for manufacturing licenses for the distillation of spirits by the European process, and for the establishment of breweries. The revenue is mainly derived at present from the first two items. The country spirit, which is in most general use throughout the Presidency, is an ardent spirit, transparent and colourless like gin. Though called arrack, it is properly speaking rum, as it is distilled from sugar-cane-jaggery, palmyra-jaggery, date-jaggery and molasses, or from a combination of these substance together with a small quantity of acacia bark. The spirit consumed in every district, except part of Vizagapatam, Godavery, parts of Kistna and Kurnool, Malabar and South Canara is distilled from these ingredients. Ganjam and the Coast talooks of Vizagapatam are at present supplied by Messrs. Minchin Brothers and Co., with rum from their sugar factory at Aska in the former district. In the hill tracts of these two districts however the spirit generally consumed is distilled from "mohwa" flowers, and when they are not procurable from grain. In Godavery, Malabar and South Canara spirits are invariably distilled from toddy, and this is the case generally in the Kistna also and parts of Kurnool. The following are the details of distillation by the native method. When the arrack is distilled from jaggery or unrefined sugar, this is broken up and put in water to ferment together with the bark for four days; then the whole is boiled in an earthen pot, the vapour being caught at the top in a tube of bamboo and carried on so as to fall into another pot, or into some condensing vessel placed in cold water. Distillation is effected in half a day. Sometimes the first product is re-distilled. When the arrack is manufactured from toddy, a quantity of this is taken on the second day after being drawn from the tree and put in a large earthen pot on an oven. On the top of this, a small earthen pan, having three holes at the sides, is placed, and over this a brass pot containing cold water. The edge of the intermediate vessel is tightly secured with cloths so as to retain the vapour, and from a hole in one side a pipe is fixed to convey the spirits into a bottle. The cold water in the upper vessel, which is open to the air and used for condensing, is renewed from time to time as it becomes heated, until distillation is completed. Women generally attend to this work. Ten quarts of toddy will yield about one of proof spirits. The first bottle drawn will be first-rate arrack; the second bottle, second quality. To make the very best arrack, toddy and arrack are mixed together and distilled. The people

believe that it is in order to impart a strong intoxicating quality that the bark of the acacia is added when arrack is made from jaggery; but in reality this is added on account of the tannin it contains, and in order to precipitate the albuminous substances contained in the jaggery. The spirits produced on the East Coast are not considered equal in purity and excellence to those distilled on the West Coast. The preparation of toddy (a Hindostany word) is a familiar process in every Madras village. Throughout the northern districts it is drawn both from the date and from the palmyra palm; in the southern districts and on the west coast from the cocoanut and palmyra. In the hill tracts of the Northern Circars and on the West Coast much toddy is also obtained from the wild sago palm. Date-toddy is the fermented juice of the date palm. The juice is extracted by making an incision in the bark of the trees and letting it exude. It may be taken at any period of the year, but only for three months out of the twelve from each tree. The average produce varies very much in different localities, and this question is being investigated. Date-toddy is largely used in the Bellary District; it is also used in Kurnool, Cuddapah, Godavery, Ganjam and Vizagapatam, the upper portions of Salem and in parts of North Arcot. Palmyra-toddy is another description. This is obtained from the palmyra tree by squeezing the young shoots in a rude apparatus contrived for the purpose, after their ends have been cut off. After eight days of this process the juice begins to exude. The male trees produce toddy from January to April, and the female from February to May. The question of average produce is under investigation. These trees are to be found in almost every district, but they are most plentiful in the southern districts of the Eastern Coast. Cocoanut toddy is obtained from the cocoanut tree by the same process as the palmyra toddy, and the average produce is probably the same. The liquor may be drawn at any period of the year, but not for more than six months out of the twelve from each tree. Cocoanut toddy is very largely in demand in the Tanjore District, in parts of Trichinopoly and in Canara and Malabar, but in other parts of the country it is not a beverage in general use, as the cocoanut groves are not so thickly spread over the country as to make it easily procurable. Toddy ferments after standing for a few hours in the heat of the day; and spoils, turning into sour vinegar, in two or three days. Toddy is also employed for yeast in making wheaten bread and rice cakes. All the beer now made in the Presidency is made from malt and hops, in the same manner as in England. The malt is mostly imported from Europe, the local barley usually yielding a very poor extract. Some malt is however imported from the Punjaub. Foreign liquors need no description. The improvements in the distillation of ordinary arrack have been recently so great, many Europeans being engaged in the process and European machinery being used, that the distinction of 'spirits made on the European process' is at the present day little more than technical for purposes of assessment; see paragraph 616 below. There is a fermented liquor in use in the Jeypore Zemindarry termed sowda which appears to be somewhat similar to the pachwye or rice-beer of Bengal. It is however made from raggy, not rice. A liquor drug, made from a cold infusion of the roots of Plumbago Zeylanica and Wrightia antidysenterica, mixed with rice flour and dried, is used to start fermentation. This liquor is included in the rented farms, and is not separately taxed. Methylated spirits for use in manufactures, &c., are prepared in several distilleries, by the usual method of the admixture of one-ninth of wood naphtha (methyl. alcohol) or of one-and-a-half per cent. of caoutchoucine with plain spirits of not less strength than 30° over proof. The duty on spirits used for this purpose is five per cent. ad valorem.

613. LAW.—The right of Government to the revenue from abkarry is reserved under Section 4 of Madras Regulation XXV of 1802. The abkarry revenue in the town and suburbs of Madras is regulated by India Act XIX of 1852. Under Section 2 of India Act III of 1856 abkarry officers are empowered to make arrests in certain cases. The law, relating to the abkarry of the Madras Presidency beyond the limits of the Madras abkarry as prescribed by India Act XIX of 1852 is found in Madras Act III of 1864. The whole law regarding abkarry as contained in India Act XIX of 1852 and Madras Act III of 1864 was amended by Madras Act V of 1879. Rules relating to the sale of spirituous and intoxicating liquors in the

town of Madras are contained in Sections 179 to 189 of Madras Act I of 1884, the City of Madras Municipal Act. References to the existing law by subject-headings are given in Vol. II., App. LIV., under the title Abkarry. The rules under these enactments having the force of law are given in the next foot-note.[2] The whole of the existing laws on the subject of abkarry will probably be repealed by the passing of an Abkarry Bill now before the local Legislative Council.

614. Methods of Administration.—The following is a brief description of the different methods for realizing the revenue and simultaneously laying a check on the habits of the people, either now prevailing, or so recently prevailing as to be intimately concerned with the present administration. They will be described as relating to (*a*) arrack, (*b*) toddy, (*c*) miscellaneous items.

615. The arrack abkarry of the town of Madras has always been managed by the Government without the intervention of general farmers, and their relations to the machinery of supply are or have been till quite recently very much the same as those of the abkarry farmers to their subordinates. The Act is India Act XIX of 1852, as amended by Madras Act V of 1879. The area of the Madras Town Abkarry was defined in the first Act as extending eight miles beyond the limits of the town proper or beyond the High Court's original jurisdiction. The tract thus outside the town known as the "outside limits" was intended to interpose between the highly priced and highly taxed liquor consumed in the town and the cheap and more lightly taxed liquor sold in the surrounding district of Chingleput, a belt of country in which the prices and taxation should be lower than in the former and higher than in the latter; so as to diminish the incentive to smuggle liquor into the town. But the taxation of liquor in Chingleput having been in recent years brought more up to the level of the town duty, the continuance of this measure of precaution was found unnecessary and has been abandoned; the tract having been amalgamated with the rest of the Chingleput District. Until April 1, 1885, the arrack system in the town of Madras was as follows. Government retained in its own hands the right of supplying the spirits consumed, which were of two kinds: Colombo arrack, a superior article distilled from cocoanut toddy and imported from Ceylon; and puttay arrack, locally made from jaggery, and so called because of the use of acacia bark in its manufacture. Both kinds of spirit were obtained from contractors and were retailed to the shopkeepers at a profit more than sufficient to cover all expenses, and with a duty more than proportionate according to strength to the tariff rate of import duty on foreign spirits, which latter were therefore pro tanto protected within the limits of the town. Under this arrangement the shop-keepers entered into an engagement called a *dowle*, whereby they agreed to sell, or at least to pay the duty on, certain quantities of liquor supplied to them daily from the Government stores and to retail them at certain fixed rates, whether custom was forthcoming or not. The object of this provision was to prevent dilution and adulteration, the inducements to which were minimised by the requirement of a fixed daily minimum of sale; and thus to protect the consumer. A very similar system is commonly adopted by abkarry renters in the management of their farms. As it appeared however undesirable that Government should be so closely connected with the traffic in intoxicating liquors, and as the consumers in Madras town are equally well able with those in mofussil districts to protect themselves against the supply of inferior and deleterious beverages, it has now been decided to abolish the entire system; and

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[2] Rules having the force of Law.—Under India Act XIX of 1852, Section 6 (Abkarry, Madras town), the following have the force of law:—(1) Section 2, Certain tract excluded as regards the sale of arrack from suburbs of Madras as defined in Section 40—Revenue Notifications, dated 23rd June 1879, published in the Fort St. George Gazette of the 1st July 1879. (2) Section 6, Conditions of licenses for the retail sale of beer, wine, and European spirits in the town of Madras—Notification of Board of Revenue in the Fort St. George Gazette, dated 7th July 1874. (3) Section 6, Forms of licenses for arrack and toddy shops prescribed by the Board of Revenue in 1863 and 1874. Under India Act XVI of 1863, Section 2 (excise on spirits used exclusively in manufactures), the following have the force of law:—(4) Rules—Revenue Board's Standing Order, No. 88. Under Madras Act III of 1864, Sections 5 and 28 (Abkarry Act), the following have the force of law:—(5) Section 5, Revised forms of licenses prescribed by the Board of Revenue in 1881 and 1882. (6) Section 28, Home manufacture of fermented liquor for 'bonâ fide' domestic consumption declared illegal unless licensed with certain exceptions—Revenue Board's Notification, dated 29th July 1873, in the Fort St. George Gazette, dated 5th August 1873. (7) Exempting Bhadrachellam and Rekapully Talooks in the Godavery District from the above notification—Revenue Board's Notification in the Fort St. George Gazette, dated 14th July 1874. (8) Rules framed by the Board of Revenue, Standing Orders, Nos. 81—89. Under Madras Act V of 1879 (Abkarry Laws Amendment Act), the following has the force of law:—(9) Revenue Notification bringing the Act into operation from the 23rd June 1879, published in the Fort St. George Gazette of the 1st July 1879.

as a first step the annual sale by auction of the right to hold shop licenses has been substituted for the dowle system. The supply of spirits is still in the hands of Government, but the shop-keepers are left to buy as much or as little as they require and to sell at such prices as they please; and on the expiry on March 31, 1886, of the current contracts for the supply of arrack, Government will withdraw altogether from concern with the business and will leave the licensed vendors to procure their supplies as may best suit them under the free-supply system. In the Jeypore country belonging to the Vizagapatam District also, with the exception of Koraputt, Hill Pachipenta and Hill Madgole, which are rented out, the Government deals directly with shop-keepers. Prior to 1868, the whole of Jeypore was rented out, but in consequence of grave irregularities and illegal exactions on the part of the renter, it was determined to discontinue the renting system. Liquor is now manufactured and sold by persons specially licensed for the purpose in consideration of an annual payment. The liquor is manufactured from rice, raggy, and the mohwa flower. In certain parts of the country and under certain circumstances the Government can exercise no controul over the liquor trade except by managing it themselves. It is not the desire of Government however to keep it in their own hands more than is absolutely necessary.

616. The farming method for arrack may have many forms. The form most usual in this Presidency gives the exclusive privilege of both manufacture and sale within defined tracts to the contractors. The contracts under this system are disposed of for a fixed period, usually a term of years, at open auction sale. The contractors almost invariably sublet their contracts at a profit. Sometimes however they adopt the system of apportioning the outside villages among a number of sub-renters and of retaining the principal town of the tract in their own hands. Occasionally they deal directly with shop-keepers in each village. In certain cases the contractors have been required by Government to manage a particular talook or town themselves, a limited number of stills only being allowed with a view to preparing the way for the introduction of the excise system. About 1859-60 the farms were placed in the hands of large capitalists by selling entire districts; after ten years' trial however the former system of talook farms was reverted to, and this still obtains in the non-excise districts. The contractors make their own arrangements for obtaining material. They are bound to keep accounts of receipts and disbursements, and of manufacture and issue of liquor, which are open to examination by the officers of Government; to sell liquor only at the prescribed strengths, and at prices between certain maximum and minimum limits; to use proper measures; and to allow inspection of premises by officers of Government. The monopoly is subject to the condition that liquor manufactured by any other person on the European process may be excised by the Government and brought into the market for sale on payment of the import rate of duty prescribed for similar articles. The farming method prevails at the present day in the Godavery, Kistna, Malabar and South Canara Districts; and in parts of the Vizagapatam and Kurnool Districts. The statistical and administrative controul given by the farming method is however insufficient for the purposes of Government. There is no certainty as to the quantities of liquor sold, and no controul over strength or prices. The excise system is therefore to be preferred, even though it may at first lead to some loss of revenue. Formerly the toddy farms were for convenience combined in every case with the arrack farms, and this is still so in all the districts specified above except Vizagapatam. The arrack and toddy interests however being separate and in some particulars opposed, it is held to be more advantageous to entrust them to separate persons, and that is now being done. A difficulty in the way of separation occurs only in those parts of the country where arrack is made from toddy, and the details of the two administrations are thus intermixed.

617. The excise method for arrack, briefly stated, differs from the farming method as follows. The manufacture of spirits is restricted to one, or at most two, distilleries. At these a Government gauging establishment is maintained; and the revenue is levied by a still-head duty on the quantity actually passed out for consumption, instead of by a lump payment calculated irrespectively of the quantity of spirits consumed. Under the farming system the farmer has always the mono-

poly both of supply and of vend. Under the excise system, the two monopolies are disposed of separately; though the same contractor may take up both. The steps by which this position has been reached will have been seen in the sketch history. As worked at the present date, the system presents the following varieties. In the South Arcot District, the monopoly both of the supply and of the vend of country spirits is held by a single firm. In the rest of the excise districts, except what are known as the "free-supply" districts, the monopolies of supply and vend are separated; the former being held by single persons or firms for the whole district, and the latter having been sold by auction, generally by the talook, but in a few instances by the shop. In the "free-supply" districts (Chingleput, Trichinopoly, Bellary town, and part of Kurnool), while the vend monopolies have been similarly disposed of, the vend monopolists have been left free to procure their supplies whence they please, subject to the payment of duty on the quantity which they purchase.

618. In the town of Madras the Government directly administer the toddy revenue, as they formerly did the arrack revenue. In this case however they do not supply the liquor to the shop-keepers. The shop-keepers obtain it themselves, under certain conditions imposed to ensure the Government revenue. Having first taken a license from Government they enter into private engagements with the owners of gardens to draw toddy from the trees situated in those gardens. The Government officers are provided with a list of the gardens and trees which the shop-keeper thus proposes to utilize, and to make sure that no others are used they stamp the trees themselves with marks indicating the season for which toddy is to be drawn. When the shop-keeper has decided on the number of trees which he wishes to utilize, the Government fix a corresponding sum which he must pay daily, as dowle or duty. As a rule the number of trees employed by a particular shop is constant, and the shops are arranged in four classes indicating the ordinary number of trees assigned to them. When extra trees are desired by the shop-keeper, these are allowed to be used at fixed rates, or on extra dowle as it is called. Toddy cannot be extracted from any tree until it has been stamped and registered by the abkarry officers. Besides the permanent shops for the sale of cocoanut-toddy, from 100 to 120 shops for the sale of palmyra-toddy are opened in the three months when the palmyra trees yield. In Jeypore also there is a direct or amauny management of toddy. The toddy in Jeypore is drawn from the sago and date palms.

619. In every other case but those mentioned in the last paragraph the toddy revenue is managed exclusively on the farming system, the rents being put up to public auction and the revenue being thence derived. The domestic manufacture of toddy except in the border mountains of South Canara and the agency tracts of Ganjam and Vizagapatam is forbidden under Section 28 of Act III of 1864. The particulars of the connection between the arrack and toddy farms have been mentioned above. The toddy-renters obtain toddy from palm trees on Government waste land free of payment, but they must make their own arrangements with the owners of puttah or inam lands for the use of trees standing thereon. It is in contemplation to abolish the toddy-farming system and to substitute for it a system of tree tax analogous to that in force in Madras town. The design is thus to raise the toddy revenue in the course of time to an amount at least approximately corresponding to the alcoholic strength of the toddy itself, and to diminish the incitements to drunkenness which are now caused by the extreme cheapness of the beverage as compared with arrack.

620. A small revenue is derived from license fees for the retail vend of foreign spirits and wines and of beer. The fees charged for licenses for Hotels and Refreshment Rooms vary from Rupees 300 to 50 per annum, according to the locality and the estimated scale of the transactions. That for wholesale licenses is Rupees 25 per annum in the mofussil. No license is at present required for wholesale vend in the town of Madras. The fees charged for retail licenses (not to be drunk on the premises) are Rupees 100 per annum in Madras, and Rupees 50 per annum in the mofussil. Retail licenses for the sale of foreign spirits, &c., to be drunk on the premises are put up to auction annually, at upset prices of Rupees 50 per annum in

Madras and of Rupees 15 per annum in the mofussil. The fee for a license to distil spirits by the European process is Rupees 100. Licenses for the sale of foreign spirits, &c., include the right to sell country beer. Previous to 1872 a revenue was derived from country-brewed beer in the shape of license fees for manufacture and retail vend; in that year a duty of 1 anna per gallon was substituted for the brewing license fee. No restriction as to the places at which brewing might be carried on was imposed till 1875; but as the liquor sold under this name was found to contain noxious ingredients and was unwholesome, the permission to brew on the plains was withdrawn, the rate of excise was raised to 4 annas a gallon, and brewing was restricted to beer made of malt, hops and sugar only, the proportion of sugar and hops to be used in the manufacture being defined, and the alcoholic strength limited to 8 per cent. Recently in order to place country-brewed beer on an equality with imported beer, which was formerly protected, the duty has been reduced to the original rate of 1 anna per gallon, which is the same as the import duty. From the arrangements here, most of which came into force only from April 1, 1885, a miscellaneous abkarry revenue of about Rupees 35,000 per annum is expected.

621. Constitution of Department.—It has recently been arranged that the supervision of Abkarry shall be transferred to the Salt Department, so that full advantage may be taken of the preventive agency, maintained by that department throughout the greater part of the Presidency for the protection of the Salt Revenue. The head of the Salt Department is now denominated Commissioner of Salt and Abkarry Revenue, and the department is in course of being strengthened by the addition of a sufficient number of Assistant Inspectors for the allotment of one officer of that class to the charge of each distillery; and by the formation of additional circles, each under the charge of an Inspector, for the due conduct of preventive action in those tracts to which the operations of the Salt Department proper were not extended. The number of Assistant Commissioners has also been increased by one, so as to provide better supervision in the districts hitherto included in the Central Division.

622. Statistics.—Some remarks as to the progress of the Abkarry Revenue during the present century and a statement of the yearly collections since 1870 have been given in the sketch history. The statements at foot [3 & 4] show the

[3] Statement showing Abkarry Collections in 1884-85 for the different districts.

Districts.	Arrack. Excise.	Arrack. Rented.	Toddy rents.	Joint arrack and toddy rents.	Miscellaneous abkarry revenue.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.
Anantapore	87,459	...	1,57,507	...	1,463	2,46,429
Bellary	3,09,963	...	1,60,795	...	4,653	4,75,411
Chingleput	1,81,821	...	1,00,976	...	1,384	2,84,181
Coimbatore	1,94,884	...	1,36,927	...	2,455	3,34,266
Cuddapah	2,09,677	...	47,113	...	1,721	2,58,511
Ganjam	1,04,200	...	12,025	...	1,871	1,18,096
Godavery	...	...	...	2,88,844	506	2,89,350
Kistna	...	...	...	2,21,544	1,019	2,22,563
Kurnool	...	1,31,301	1,77,600	33,799	463	3,43,163
Madras	7,78,778	...	3,39,505	...	5,786	11,24,069
Madura	1,54,145	...	46,650	...	404	2,01,199
Malabar	30,556	...	...	2,34,606	3,429	2,68,591
Nellore	1,24,240	...	21,264	...	2,539	1,48,043
Neilgherries	1,74,167	...	...	...	8,706	1,82,873
North Arcot	3,31,073	...	1,16,831	...	5,500	4,53,404
Salem	2,17,560	...	1,64,665	...	3,004	3,85,229
South Arcot	2,09,557	...	1,51,971	...	1,475	3,63,003
South Canara	...	...	...	1,63,268	1,163	1,64,431
Tanjore	1,16,979	...	4,61,726	...	2,088	5,80,793
Tinnevelly	1,12,385	...	71,100	...	1,933	1,85,418
Trichinopoly	1,35,714	...	79,260	...	2,527	2,17,501
Vizagapatam	1,45,439	9,121	39,456	...	801	1,94,817
Total ...	36,18,597	1,40,422	22,85,371	9,42,061	54,890	70,41,341

collections in the several districts, in the year 1884-85; and the consumption of spirits 30° under proof during the past three years in the excise districts and in Madras town, as to which alone trustworthy information under this head is available.

OPIUM.

623. INTRODUCTION.—Opium is the dried juice of the unripe capsules of a species of poppy. The poppy plant is described botanically as an annual varying in height from one to six feet, erect, branched, of a glaucous green colour, with ovate-oblong sessile leaves, the stem and leaves generally smooth, the branches terminated by large flowers on long stalks, the capsules globose or roundish-ovate and smooth. There are two varieties of the plant, the papaver somniferum with red flowers and black seeds, and the papaver officinale with white flowers and white seeds. The former is grown on the Himalayas, but the opium of commerce is mostly manufactured from the papaver officinale. The juice is obtained as the plant stands by making incisions in the capsules and allowing it to exude. It is then inspissated or thickened by atmospheric evaporation, and finally made up into hard balls or cakes. The cultivation and preparation of opium forms a precarious industry. Opium is not largely consumed in any European country, ardent spirits being rather resorted to. Asiatic countries on the contrary, especially China, Burmah, the Straits Settlements, and the islands of the Eastern Archipelago, employ it in preference to any other narcotic or stimulant. It is stated that excess in the use of opium is less injurious than excess in the use of spirituous liquors; while on the other hand its moderate use after the age of 40 prevents waste of tissue, prolongs life, and makes the system less amenable to the influences of malarial and other poisons which vitiate the atmosphere of tropical countries. The usual process of preparing for actual use in the smoker's pipe is to mix the raw opium with the ashes of the previously half-consumed opium, to make an infusion of this in water; and then to evaporate the infusion to the consistence of a thin extract, which is put in the pipe and smoked by incandescence. It is however also prepared and smoked in the form of solid pills about the size of a pea. Opium is grown in China, Asiatic Turkey, Egypt, Persia, and India. The Indian drug is the most esteemed, and fetches the highest price. The best Indian opium is that made in a large tract on the Ganges, about 600 miles in length and 200 miles in breadth. This tract is divided for administrative purposes into two agencies, Behar and Benares; the central factory of the former being at Patna, and that of the latter being at Ghazeepore in the division of Benares. The opium of this tract is called Bengal opium. The cultivation there is a Government monopoly, no person being allowed to grow the poppy except on account of Government. Annual engagements are entered into with the cultivators to sow a certain quantity of land, and to deliver the whole produce to Government at a fixed rate varying with quality. The engagement is confirmed by an advance of money. It is optional on the part of the cultivator to enter into this agreement, or to employ

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[4] CONSUMPTION FOR THREE YEARS OF SPIRITS IN EXCISE DISTRICTS AND IN MADRAS TOWN REDUCED TO 30° UNDER PROOF.

Districts.	1882-83.	1883-84.	1884-85.	Districts.	1882-83.	1883-84.	1884-85.
	GALS.	GALS.	GALS.		GALS.	GALS.	GALS.
Anantapore	40,188	38,513	41,351	Madras Town Colombo ...	105,367*	107,513*	108,682*
Arcot, North	107,013	114,044	123,438	Madras Town Puttay ...	66,569	64,499	65,660
Arcot, South	71,848	77,822	94,456	Madura	59,988	68,188	71,933
Bellary District	36,796	39,988	33,046	Nellore	54,615	54,859	50,608
Bellary Cantonment	62,008	66,979	64,819	Neilgherries	60,233	58,460	48,802
Chingleput	62,226	55,218	64,988	Salem	69,655	78,817	70,404
Coimbatore	68,906	79,034	59,448	Tanjore	47,333	43,699	49,327
Cuddapah	75,558	72,567	80,259	Tinnevelly	44,672	53,024	52,673
Ganjam	56,413	60,035	67,233	Trichinopoly	49,209	52,481	55,196
Kurnool	43,886	47,286	59,782	Vizagapatam	17,457	15,186	14,179

* 25° under proof.

his land otherwise. Manufacture for Government then takes place at Patna and Ghazeepore. Sale of the balls or cakes, the property of Government, takes place by auction. Merchants purchase, and with scarcely any deduction export viâ Calcutta to China and the other foreign markets. The number of chests of Bengal opium sold annually is about 56,000; realizing about 700 lakhs of rupees, of which two-thirds may be said to be revenue to Government. Hong Kong [1] takes about two-thirds of the total exports of the Bengal article, and the Straits Settlements about one-sixth. A small quantity comes to Ceylon. The native states of Central India grow a somewhat inferior opium, which is there cultivated free. It cannot however pass into British territory, and consequently cannot reach the sea for export, without paying a special duty to the British Government. This is called Malwah opium. It has an intrinsic advantage over Bengal opium in being more easily prepared for smoking. From a chest of Bengal opium containing 100 catties only 56 to 60 of prepared opium is obtainable, while from a similar chest of Malwah opium 70 to 76 catties can be had. Bengal opium requires 36 hours to prepare for the pipe, but Malwah can be prepared in a few hours. Malwah opium is made in flat circular cakes, of an average weight of 1½ lb. of a rusty brown colour with a strong odour, and with a bitter permanent taste. It is much adulterated. Bombay exports to China nearly 40,000 chests of opium annually, the revenue to Government from duty being almost identical with that in Bengal from sales. The proportion retained in Bombay Presidency for home consumption is fractional. This Presidency is not the channel of export for opium to any exterior foreign country. It however imports from Malwah direct a small quantity for its own home consumption and that of adjoining native states and foreign settlements in Southern India. Opium is chiefly consumed in the northern districts, viz., Ganjam, Vizagapatam, Godavery, and Kistna. The classes that smoke it are the Ooriyahs, the hill-men generally, and the lower classes of Mahomedans. The Hindoos, excepting those who have come from northern parts of India, do not use it to an appreciable extent except as a medicinal preparation. The receipts in this Presidency are (a) the pass duty on opium imported into the Presidency, paid at Indore but credited to this Government, (b) the proceeds of the sale at public auction of the farms for the retail vend of opium, and the manufacture and vend of intoxicating drugs prepared from the poppy after such importation, (c) fees levied on licenses for the sale of poppy-heads, and (d) fines levied for offences against the Opium Act and Rules.

624. LAW.—The Act which regulates the opium revenue in this Presidency is India Act I of 1878. The provisions of this law are mainly in the direction of making illegal the cultivation, manufacture, possession, transport, import, export, or sale, of opium otherwise than in accordance with rules to be made by the Local Government; and to give the latter the force of law. Conduct contravening the Act or rules with reference to these particulars is punishable with imprisonment of not more than a year, or fine not exceeding Rupees 1,000, or both, non-payment of fine being commutable into imprisonment for not more than six months; and the opium or the poppy-heads concerned in such cases are liable to confiscation, together with the packages, coverings, animals, and conveyances. Officers of the

[1] SKETCH HISTORY OF THE CONNECTION BETWEEN INDIAN-GROWN OPIUM AND THE CHINA MARKET.—It is usually supposed that England first introduced opium into China, which is an error. Early in the sixteenth century the use of the poppy was known to the Chinese, or a century and a half before the English were concerned in its cultivation. It is supposed to have been introduced both into China and into India by Mahomedan traders. The monopoly of opium in Behar was first assumed by the Indian Government in 1778. The exclusive provision of opium on account of the company was then let in farm, first annually, but from the year 1781 in successive contracts for four years. The contractor engaged to deliver a certain quantity of opium at a fixed rate to be paid by the Government. Under this arrangement it was found that the opium deteriorated in quality, and the Government profits in consequence materially decreased. The agency system was therefore resorted to, and from the time the first agent was appointed there was a marked improvement in the trade, which continued steadily to increase. The number of chests of opium in the first year of the agency was 3,733, while in 1838-9 there were 11,629 chests. At this period a change took place in the China trade. Up to that time, though an official prohibition on opium existed in China, the sale of the drug had been tacitly permitted by the authorities; and the trade had gradually grown from a small beginning into an important branch of industry, traders acting as though no prohibition on the article existed. This rapid increase of the opium trade however caused uneasiness on the part of the Chinese Government, and the desire to put it down at once and effectually led to an outrage, 20,000 chests of opium belonging to British traders being suddenly confiscated and destroyed. It was this act of violence that caused the Chinese war, which did not terminate until 1842. The Chinese then paid 21,000,000 dollars towards the expenses of the war, and a further sum of £1,250,000 to the owners of the confiscated chests. The prohibition on opium remained in force after the treaty of 1842, but was finally repealed in the year 1858. The increase in the trade nearly doubled between the years just named; and now that the embargo is taken off, and the importation into China is legalized at a fixed duty the trade yearly increases in value.

Police, Revenue, and Excise departments, above the grade of a peon or constable, have power to enter and seize upon any unauthorized cultivation of the poppy or possession of opium, and are entitled to such rewards as the Magistrate in each case may adjudge. Sums of money due to Government under the Act are recoverable as arrears of land revenue. Arrears due to the farmers from their licensed vendors are also similarly recoverable, provided application is made to that effect to the Collector. The rules of the Madras Government under this Act bear date the 22nd June 1880. Cultivation is not provided for, as there is none in the Presidency. There was some cultivation to a very small extent by hill-men on the Neilgherries, but it has since been prohibited. Manufacture of intoxicating drugs prepared from the poppy is permitted under a license from competent authority. The rules contemplate three classes of agents in the management of the traffic; first the importer or merchant who imports wholesale and sells again to the separate vendor or the farmer who contracts with Government to vend by agency, secondly the farmer just mentioned, and thirdly the licensed vendor either direct under Government or under the farmer. Medical practitioners holding the drug for medical purposes are also recognized. The sale of more than three tolahs of opium, or of more than five seers of poppy-heads, is wholesale. At those amounts and under the sale is retail. The nature of the rules for controlling the different parts of the agency can best be seen from the remarks on the procedure shown below. Opium confiscated under the Opium Act is sent to the Collector's office, or destroyed if unfit for use. Intoxicating drugs confiscated are destroyed. Poppy-heads confiscated are disposed of as the excise officer may direct. A Magistrate convicting an offender under the Opium Act may as above said grant a reward to any person who has contributed to the conviction of the offender. The law in detail is shown under the head of 'Opium' in Vol. II, App. LIV, and the rules having the force of law on the subject are given in the foot-note.[2]

625. CONSTITUTION OF DEPARTMENT.—The opium revenue in this Presidency is administered by Collectors controlled by the Board of Revenue. The Collector has power to appoint his Divisional officers or Treasury Deputies as officers in charge of the opium revenue of their respective ranges. In the Presidency town, the Act is worked by the Town Abkarry Establishment under the supervision of the Deputy Collector of Madras.

626. PROCEDURE.—Merchants intending to import opium or poppy-heads must obtain a license from the Board of Revenue through the Collector of the district into which it is to be imported. The license is granted in duplicate, of which one copy is furnished to the importer and the other sent to the Deputy Opium Agent at Indore. The importer purchases the required opium from the Malwah markets, and each consignment is produced before the Deputy Opium Agent, Indore, or one of his Assistant Agents, who, on the consignments being weighed and examined, issues a passport on payment of a pass duty at Rupees 700 a chest of 140 lb. with a dryage allowance of $\frac{1}{4}$ lb. The agent accounts to Madras for this duty. The consignment is then conveyed by certain routes specified in the Board's license and produced for examination before the Collector or other officer in charge of the excise revenue of the district in which the place of destination is situate. After examination it is passed on to the consignee, who issues the drugs wholesale to the farmers and licensed vendors. A licensed importer may sell by wholesale any quantity of opium or poppy-heads to a farmer, or licensed vendor, and a farmer or licensed vendor may similarly sell any quantity of opium to another farmer or licensed vendor, and to a medical practitioner in quantities that the practitioners are licensed to hold. Retail sale of opium is permitted under a license of the Collector or the farmer, but no such sale should be made at any Collector's office or by licensed importers. A licensed vendor may sell by retail at one time to any person up to three tolahs of either opium or intoxicating drugs or five seers of poppy-heads. The number of shops for each farm should be decided by the Collector, and

[2] OPIUM RULES HAVING THE FORCE OF LAW.—Under Act I of 1878, Sections 5, 6 and 13 (Opium), the following have the force of law:—(1) Sections 5 and 13, Rules—Revenue Notification, Fort St. George Gazette Supplement, dated 22nd June 1880; (2) Revenue Notification, Fort St. George Gazette, dated 13th April 1881; (3) Amendment of Rule 21; (4) Section 6, Duty on each chest of Malwah opium imported into the Madras Presidency; (5) Second-class Magistrates empowered to try cases under Act—Judicial Notification, Fort St. George Gazette, dated 12th October 1880.

sold in auction at the commencement of each year either singly or in groups according to his discretion. Licenses and engagements are interchanged in respect of each of them and hold good for one year. The sale of any quantity of opium or intoxicating drugs exceeding three tolahs or of poppy-heads exceeding five seers is wholesale, and of any less quantity retail sale. Intoxicating drugs may be manufactured from opium under the Collector's license. Any person may have in his possession three tolahs of opium and intoxicating drugs and five seers of poppy-heads, provided they have been purchased from Government, a farmer, or a licensed vendor, or medical practitioner. But no one can hold a greater quantity, unless he is a licensed importer, a farmer, or a licensed vendor, or medical practitioner, or unless specially authorized by the Collector with the Board's sanction, in which case he can hold not more than one seer of opium or intoxicating drugs. Under a license from the Collector a medical practitioner may have for purely medicinal purposes one seer of opium, one seer of intoxicating drugs, and ten seers of poppy-heads. Persons wishing to transport opium from one district to another must first obtain a pass in the prescribed form for each consignment from the officer in charge of the opium revenue of the district from which such opium is to be transported. Each package is stamped in the presence of the officer granting the pass with the official seal. No pass is granted unless the person applying for it produces a written permission for so applying from the officer in charge of the opium revenue of the district to which the opium is consigned. A copy of every transport pass is sent to the last-named excise officer, who examines the consignment on its arrival there, and if satisfied that the packages have not been tampered with, passes it on to the consignee. These rules apply 'mutatis mutandis,' to the consignments passing from one talook to another with the difference that in this case the Tahsildar of the respective localities is the officer granting passes and examining consignments. Exports to Mysore, Travancore, Cochin, Bunganapully, Sundoor, Poodoocottah, and the French Settlements must be made under the license of the respective Residents or Political Agents of these places.[3]

627. STATISTICS.—The current demand on account of the opium revenue during the past three years and nine months of the present administration is given below.[4] The actual collections during the year 1883-84 under the several heads amounted to Rupees 6,27,673 as shown below.[5]

[3] SKETCH HISTORY OF OPIUM MANAGEMENT IN THIS PRESIDENCY.—There were no restrictions on the sale of opium prior to 1880. The Opium Act, India No. I of 1878, was brought into force throughout the Presidency on 1st July 1880 and the sales of the opium shops took place in the months of July and August following. During the first two years and nine months the monopoly of the retail vend of opium and intoxicating drugs was sold by auction to the highest bidder at the commencement of each official year, except in the hill tracts of Ganjam, Vizagapatam, and Godavery, on the shop-license system. Under this system the purchasers at auction sales were bound to take out licenses and maintain shops at the localities prescribed, and pay, besides the purchase money for the monopoly privilege, a monthly duty of one rupee for each shop. The monopoly of the retail vend of opium and intoxicating drugs did not then include the privilege of vending poppy-heads for which separate licenses were granted for a period of one year on payment of a fee of Rupees 3 for each shop. The shop-license system was abandoned in April 1883 in favour of a farming system under which the privilege of vending opium, intoxicating drugs, and poppy-heads was sold by talooks. The sale of poppy-heads has very recently been separated from the opium farms, and separate licenses are granted for them on payment of a small fee of 8 annas. In the hill tracts of Ganjam, Vizagapatam, and Godavery the privilege of retail vend has not been sold by auction as in the plains, but licenses have been granted by Collectors at their discretion, the licensees being bound to sell the drug at prices not exceeding a maximum price prescribed. In the Vizagapatam hill tracts Government purchased the opium and supplied retail shop-keepers at certain rates till the beginning of 1884-85. Since 1st April 1884 the supply there has been left to a private contractor. From 1st April 1885 a lump payment determined by tender has been levied for the monopoly privilege of supply.

[4] STATISTICS OF OPIUM MANAGEMENT.

—	1880-81.*	1881-82.	1882-83.	1883-84.
	RS.	RS.	RS.	RS.
Amount of auction sale of the monopoly of vend of opium and intoxicating drugs.	98,732	1,58,578	1,85,337	2,12,977
License fees: opium	6,601	11,191	10,803	31,868
License fees: intoxicating drugs	295	993	2,204	
License fees: poppy-heads	72	15	21	
Miscellaneous	..	..	..	425
Total, exclusive of pass duty ..	1,05,700	1,70,777	1,98,365	2,45,270
Add pass duty on opium imported from Indore	3,61,200	2,68,535	3,52,050	4,13,250
Total ..	4,66,900	4,39,312	5,50,415	6,58,520

* 9 months only.

POST.

628. Imperial Post.—With the exception of occasional references in other Acts, India Act No. XIV of 1866 comprises the whole law relating to the post office.[1] It is an Act for the internal management of the department, for the regulation of postage charges, and for the punishment of offences against the department. It amended India Act XVII of 1854. The details of the law under subject-heads are shown under the head of 'Post' in Vol. II, App. LIV. Under sections 19, 21, 22, 23 and 63 of the Act, the Governor-General in Council is empowered to fix and alter the rate of postage and to frame rules for the conduct of the post office not inconsistent with the Act, and therein to prescribe the regulations, conditions and restrictions according to which all letters and other articles shall be posted, forwarded, conveyed or delivered, and under section 64 to frame rules for the management of the zemindarry and district dawks. The postal rules having the force of law are given in foot-note.[2] The various postal circles of India are under the control of the Director-General of the Post Office, an officer under the immediate orders of the Government of India. The Madras postal circle comprehends the Presidency of Madras and the Imperial Post offices and lines established for Political or other State purposes within the territories of the Native States lying within the limits of the Presidency. It also controls a few Imperial offices and lines in the Hyderabad State, namely, those that lie to the south of a line running east and west from Hominadabad. Such offices and lines to the north of this line are controlled by the Central Provinces Postal Circle or by Bombay. All the above States have postal systems of their own, which, though primarily established for administrative purposes, are largely used for private correspondence, and a well-established reciprocity exists between them and the Imperial Post office. The circle is administered by the Postmaster-General of Madras, who serves immediately under the Director-General. The circle is divided into 11 postal divisions generally comprising 2 revenue districts each. The chief postal officer in each division is styled Superintendent of Post Offices. He is assisted by Inspectors of Post Offices, one such officer being appointed for each revenue district. In the Madras postal circle there are at present 942 post offices, i.e., 32 head post offices, 766 sub post offices, and 144 village post offices. Every post office in the Madras Presidency and attached Native States is indicated in

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[8] Actual Collections for Opium during 1883-84.

	RS.
Pass duty on opium imported	4,13,250
Gain on sale-proceeds of Government opium	28,731
Revenue derived from the sale of monopoly of vend	1,48,581
License fees on shops for he sale of opium	36,767
Miscellaneous	344
Total ..	6,27,673

[1] Sketch History of Imperial Post.—On the 24th July 1837 under India Act No. XVII of that year, the Government assumed, by law, the exclusive right of conveying letters by post for hire; but the arrangements were at first very primitive. There was no one controlling head of the department; it was managed by local Postmasters-General who were also the Postmasters of the Presidency towns, while the Collectors of districts had charge of post offices up-country. The dawks consisted of a few main lines of runners connecting the principal towns in the mofussil with the seat of Government, and until 1837 it was a positive privilege to be allowed to send private letters by the Government dawk. Even after that date receipts were granted for every article received for despatch and the addresses of all articles received were entered in lists; these were given to the postmen, who brought back the addressees' signatures upon them. The addresses on all articles passing in transit through post offices were also recorded. Postage was paid in cash and varied according to distance. The English mail was received once a month. In 1854 a uniform rate of letter-postage, irrespective of distance, was introduced, postage stamps were manufactured, and the whole of the post offices of India were placed under the management of a Director-General. In the same year the Postal Act of 1854 was passed repealing the Act of 1837. Its principal features still exist in the present Act XIV of 1866 which repealed it in turn. The year 1854 must therefore be looked back to as the commencement of the present arrangements. The number of post offices in the Madras circle in 1854 was 129; it has risen in 1883-84 to 942, an increase of over 700 per cent. The total number of articles passing through the post office has risen from 5,466,672 in 1854-55 to 31,778,552 in 1882-83. The articles carried by post up to the year 1879 consisted of letters, newspapers, book-packets and parcels. Post cards were introdnced in 1879. The system of insurance was introduced in 1878 and that of value-payable articles in 1877. Money orders were introduced in 1880. Postal savings banks were introduced in 1882 and India postal notes in 1883. Telegraph amalgamation with the post office was also commenced at the close of 1883. Telegraphic money-orders were introduced in August 1884.

[2] Postal Rules having the force of Law.—The principal rules of the Post Office having the force of law are those issued by the Governor-General, bearing date the 21st April 1866, under the heading "Orders and Rules passed by the Governor-General in Council under the provisions of the Post Office Act of 1866."

Volume III of this publication, with some particulars as to each. Mails are carried by railway over 1,815½ miles, by mail carts over 98 miles, by runners 6,377¼ miles, by boats 15 miles, and by sea 3,064 miles. At the head-quarters of each revenue district, the post office is termed a disbursing head office. This controls the accounts, salaries, &c., of all the postal officials of the district, and is authorized to deal with all articles of the letter and parcel mails posted for despatch or received for delivery. It is empowered to register articles and also to insure them during transit by post. It can despatch and deliver value-payable articles. It can issue and pay money orders and postal notes and is the chief postal savings bank of the district. With certain exceptions it is also an agency for the sale of stock notes. The officer in charge of a head office is designated Head Postmaster. The sub-office deals with unregistered articles and parcels in the same way as a head office, except that in some cases it does not deliver articles. Sub-offices, with some exceptions, issue and pay money orders, but only certain selected offices are allowed to issue foreign money orders without previous reference to the head office. Sub-offices are generally authorized to sell and pay postal notes and are also sub-savings banks. The officer in charge of the sub-office is designated a Sub-Postmaster. A village post office deals with unregistered and registered articles in the same way as a sub-office, and it can also deliver insured letters, ordinary and insured parcels, and inland money orders. It is authorized to receive ordinary parcels for despatch and applications for inland money orders together with cash from the senders or remitters. A village office may pay money orders sent to it with cash by the account office. It cannot insure articles, or despatch or deliver value-payable articles, or transact savings bank business. The officer in charge of a village office is designated a Village Postmaster. An experiment of employing some village authority, or respectable resident, as Village Postmaster on a trifling remuneration, not exceeding Rupees 5, has been attended with some success. In many cases the men have taken an intelligent interest in the scheme and have succeeded in establishing a post office whose income exceeds considerably its outlay. Village postmen are employed to deliver articles, the addressees of which live beyond the limits of the ordinary postman's beats. They collect articles for despatch and receive articles for registration. They have regular beats to travel, and in most cases by their agency every village of importance is visited at least twice a week, more generally three times a week. At foot [3] is a comparative statement showing the advance of the department, as far as this circle is concerned, during the last thirty years. The Postal Guide, Postal Abstract, and Mail Calendar are books containing information on postal matters and can be purchased at all post offices for a trifling cost.

629. DISTRICT POST.—Under India Act XIV of 1866, section 64, the Governor-General in Council is empowered to frame rules, from time to time, for regulating the district dawks, and in exercise of that power sections 25, 27, 35, 42, 43, 44, 45, 47, 48, 49, 50, and 51 of the Act just named have been made applicable to the district post in this Presidency. All the receipts from postage stamps are credited to Imperial, and even cash payments incidental to unpaid or insufficiently paid letters sent by district post are collected by the Imperial Department, so that in fact all the receipts of the district post are credited to Imperial revenue, while all the charges remain a burden on Provincial funds. In former years a grant was made to Provincial revenues to cover the cost of the district post, but in 1882-83, under the decentralization scheme, this grant was included in the lump sum given as contribution to Provincial funds. In the estimate of charges for 1884-85, the cost of the district post is given as Rupees 1,13,500. The district post as now

[3] STATISTICS OF IMPERIAL POST IN MADRAS CIRCLE.

Years.	Number of post offices.	Miles comprised by postal lines.	Number of articles of all kinds carried by post.	
1854-55 ...	129	Information not available.	5,466,672	passing through the post.
1864-65 ...	176	6,388	9,544,308	received for delivery.
1874-75 ...	514	10,365	18,891,669	received for delivery.
1882-83 ...	789	11,369	31,778,552	received for delivery.

arranged [4] furnishes inter-communication between those parts of the country which are removed from the general post lines. The talook stations are the first connected, and between these the delivery is carried out by the ordinary staff of village postmen. The delivery into outlying villages is carried out by a system called the rural delivery. The rural delivery establishment consists of a staff of itinerating postmen, whose beats are so arranged that they shall visit the principal villages in the talook once, twice, and thrice a week, or daily according to the importance of the village, its accessibility, and the funds that are available; and of village letter-boxes or places of call for the postmen. These boxes are in charge of, and managed by, respectable inhabitants or officials, such as village moonsifs or curnums of the village, who in some cases give their services gratuitously, and in other cases are paid a small stipend of Rupees 2 a month. If the receipts on any line exceed the charges, the Postmaster-General takes over the establishment to Imperial, and Collectors, with the sanction of the Board of Revenue, can appropriate in extending the district post to remoter tracts the funds thus set free. This system has gone on until there is now left to the district post little but rural delivery in the poorer portions of the districts. The district post establishments [5] are all under the control of the Imperial Postal Department for the sake of uniformity and discipline. The only difference between the Imperial post and District post is that the former is a charge on Imperial revenues and restricts its operations to remunerative lines and localities. If the district post were amalgamated with the Imperial Postal Budget, postal facilities would doubtless be withdrawn from several localities to which they have been extended by Collectors. During the year 1883-84 rural delivery was in operation, with more or less of financial success, in 135 talooks of 20 districts, and in 28 talooks solvency had been

[4] SKETCH HISTORY OF MADRAS DISTRICT POST.—The district post existed in this Presidency prior to 1846 solely for the transmission of official correspondence between Collectors and Magistrates and their subordinate officers. It had then no connection with the ordinary Postal Department, and the dawks were carried by the peons and village servants belonging to the Revenue establishment as they could be spared from other duty. There were no receipts, and no separate charges appeared in the accounts. In 1846 the district post was by order of Government opened to the public on payment of postage in cash. The agency continued the same, and the district postage, regulated on a different principle from the post rates of the ordinary Postal Department, furnished a fund credited to the district in which it was raised. A letter passed on from the regular post to the district post for delivery at an outlying village where there was no regular post office, was charged district rate in addition to the regular postage, and 'vice versâ.' There was no inter-communication between the two posts. It was not at this time contemplated that the district dawks should be a source of profit to the State; consequently it was understood that the Collector of each district was authorized to expend on the improvement of the district postal system any revenue which it produced. The receipts grew very rapidly, and in 1848-49 amounted to Rupees 21,734. In 1854 postage stamps were introduced in lieu of cash payments in the regular Postal Department, and simultaneously it was arranged that as regards matters of payment, as far as the public was concerned, there should be no distinction between this post and the district post, the two forming one system for the public convenience. From this date the district post may be said to have been converted into a feeder of the Imperial post.

[5] DETAILS OF DISTRICT POST ESTABLISHMENT IN A RECENT AVERAGE YEAR.

Districts.	District post offices.	Letter-boxes.	Village postmen.	Box postmen.	Postal runners.	Expenditure in 1882-83.
						RS.
Anantapore	...	27	37	...	10	4,615
Arcot, North	6	25	83	...	17	7,006
Arcot, South	...	32	34	...	42	4,980
Bellary	...	...	51	...	8	3,351
Canara, South	...	20	24	...	18	3,232
Chingleput	...	22	32	...	7	2,638
Coimbatore	1	69	41	...	10	4,081
Cuddapah	3	6	14	...	29	3,045
Ganjam	...	58	19	...	21	5,877
Godavery	3	21	35	...	53	6,712
Kistna	...	46	37	...	58	7,573
Kurnool	...	18	46	...	...	3,456
Madura	...	24	70	...	58	8,022
Malabar	...	29	57	...	...	4,910
Nellore	...	26	22	9	65	6,949
Neilgherries	...	...	5	...	3	720
Salem	...	30	51	...	4	3,977
Tanjore	...	33	60	...	...	4,664
Tinnevelly	...	42	34	1	25	4,135
Trichinopoly	...	82	48	1	6	3,913
Vizagapatam	2	52	41	...	119	9,400
Presidency Audit	...	...	...	...	...	2,038
Total ...	15	662	841	11	553	1,05,294

established and Imperial amalgamation had taken place. The net results of the system, so far as it has gone, goes to show that in the richer districts, such as Tanjore, Godavery, Kistna, Malabar, Tinnevelly, and South Arcot, the rural delivery is appreciated by the people; but that it will take some time before it is largely used in the poorer districts. It is noteworthy that where missions have established rural education, this post receives a great stimulus. Fluctuations in receipts are occasioned by a variety of causes; being for instance at a maximum in the early months of the year, when marriages are being celebrated, and at a minimum in the rains when people are engaged in agricultural pursuits.

630. OFFICIAL POSTAGE.—The rules relating to inland and foreign official postage will be found in Vol. II, App. LXXXVIII.

TELEGRAPH.

631. DESCRIPTION.—The Telegraph Department is directly under the Imperial Government, and there is no local control. The Madras Presidency embraces three complete telegraph divisions called the Madras, Bellary and Malabar Coast, and part of a fourth called the Ganjam division. In 1884 the extent of lines in the Presidency was as at foot.[1] Not included in this statement are the following lines, which are the exclusive property of the Madras Government: line from the Observatory to the Time Gun; line from the Observatory to the Marine office; line at the Powder Proof Range. A map showing the telegraph lines and stations is excluded here by necessities of publication, but will be found in the collection of maps given with Vol. III. Telegraph offices may be divided into three classes: departmental offices; licensed offices equipped and maintained by the department but worked by State Railways or Canals; and licensed offices equipped, maintained and worked by Guaranteed Railways. On the 31st March 1883 the number of telegraph offices open in the Presidency was as under.[2] There is also a telephone system in Madras consisting of 6 miles of line, 30 miles of wire and 10 offices, the property of the department, rented to the Madras Government. The telegraphic requirements of Madras itself are met by a central office in Black Town and 9 district offices located in Fort St. George, Mount Road, Vepery, Triplicane, St. Thomas' Mount, St. Thomé, Sydapett, Chetput, and Adyar. The cable of the

[1] EXTENT OF TELEGRAPH LINES IN THE PRESIDENCY.

—		Miles of line.	Miles of wire.
The property of Government.	Madras division	1,857	4,653
	Bellary do.	939	1,693
	Malabar Coast division	686	729
	Ganjam division	843	1,975
	Total ...	4,325	9,050
Guaranteed Railways	Madras Railway Company ...	858	1,955
	Grand Total ...	5,183	11,005

[2] NUMBER OF OFFICES IN THE PRESIDENCY.

Class I.		
Madras division ...	30	
Bellary do. ...	14	
Malabar Coast division ...	12	
Ganjam division ...	12	
		68
Class II.		
Mysore State Railway ...	14	
Southern Mahratta State Railway ...	4	
		18
Class III.		
Madras Railway ...	109	
South Indian Railway ...	97	
		206
Total number of telegraph offices ...		292

Eastern Extension China and Australia Telegraph Company is laid between Madras and Penang, and the greater number of the messages from Europe to the far East pass across India viâ Bombay and Madras. A first-class office is kept up at Paumben in the island of Rameswaram attached to Madura district to regulate the traffic between Ceylon and the western and eastern lines in India. Two short cables are laid across the Paumben Channel connecting the island of Rameswaram with the Indian mainland, and another cable 33 miles in length is laid from the island of Rameswaram to Tallamanaar on the island of Manaar attached to Ceylon. Ootacamund, the seat of Government during the hot season, is connected telegraphically with the rest of India by three routes. One wire connects it with Mysore, another with Calicut and the West Coast, and a third with the Madras Railway system at Mettapolliem. All three lines run through heavy jungle at the foot of the hills and are liable to interruption from falling trees and wild elephants. At Bezwada, where the telegraph line crosses the Kistna river, there is a single span which is probably the longest in the world, the distance from post to post being 1,800 yards, or rather over one mile. This span is made possible by the high banks on either side of the river. The Telegraph Act is India Act I of 1876. The law in detail is shown under the head of 'Electric Telegraph' in Vol. II, App. LIV, and the rules with force of law below.[3] The next table below [4] gives the number of miles of lines, the total receipts, and the working expenditure of the Government telegraphs throughout India, in each of the ten fiscal years from 1873 to 1882. Previous to 1881 the Ceylon telegraphs are included in the statistics.

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[3] TELEGRAPH RULES HAVING THE FORCE OF LAW:—Under section 7 of India Act I of 1876, the Revised Tariff on Inland Messages, published in the Fort St. George Gazette, of 21st December 1881, has the force of law.

[4] TELEGRAPH STATISTICS FOR THE WHOLE OF INDIA.

Years ended 31st March.	Number of miles of wire.	Number of miles of line.	Total receipts.	Working expenditure.	Number of messages.
			£	£	
1873	30,681	15,705	183,216	254,610	726,341
1874	32,556	15,980	196,820	255,711	788,572
1875	33,798	16,649	203,881	266,823	883,727
1876	36,193	17,145	213,054	276,943	958,408
1877	39,700	17,840	249,646	265,387	1,166,833
1878	42,687	18,210	306,089	279,879	1,431,452
1879	44,470	18,589	353,741	304,381	1,379,312
1880	51,834	20,468	422,463	292,291	1,569,907
1881	54,318	19,679	452,872	310,371	1,658,647
1882	58,746	20,631	376,597	324,673	1,614,665

CHAPTER V.

FINANCE.

FUNDS AND SERVICES.

(a) *Preliminary.*

632. INTRODUCTION.—The revenue and expenditure of the Presidency may be regarded under five heads, the classification being mainly according to the nature of the control exercised; that is to say according as the funds are administered exclusively by the Government of India, by a mixed control of the Government of India and the Local Government, exclusively by the Local Government, for special or local objects, or under such circumstances that they are excluded from the accounts of the empire. This gives the heads Imperial, Imperial and Provincial combined, Provincial, Local, and Excluded. Imperial and Provincial revenues are derived from the same sources, and are available by law for the general purposes of the empire as a whole; the term Provincial however has been since 1871 applied to that portion of the Imperial revenue, which as a matter of contract between the Imperial and Provincial Governments is allotted for the Provincial administration. Since 1881 again [1 to 4] the Imperial and Local Governments have had a combined

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[1] SKETCH HISTORY OF THE FINANCIAL DECENTRALIZATION SCHEMES.—*First decentralization scheme.*—The Provincial head of account was opened in the year 1871 as a result of the first decentralization scheme. The main object of this scheme formed at a time of some financial pressure was to definitely limit the demands of Provincial Governments on the Imperial Exchequer on those important branches of civil expenditure, where from the progressive spirit of the age the demands for increased outlay had most arisen and would most arise, and in which from the very nature of the case, the supreme central authority was least able to check the requirements of the local authorities. It was moreover confidently anticipated that the increased financial control afforded to the Local Governments over the transferred heads would give them an additional interest in the study and the enforcement of economy in expenditure and would conduce to administrative as well as financial improvement. A fixed allotment was assigned to the Provincial Governments for expenditure on Jails, Registration, Police, Education, Medical Services, excepting Medical Establishments Printing, Roads and Miscellaneous Public Improvements, and Civil Buildings, the total receipts from these services being also made Provincial. The Local Government subject to certain general rules were authorized to regulate at their discretion all the expenditure on the transferred services. If the existing income, that is to say the Imperial allotment plus departmental receipts, exceeded the requirements of any particular service, the excess was at the disposal of the Local Government for expenditure in other directions. If it did not suffice, the Local Governments were debarred from applying for fresh grants to the Government of India, and were required to raise what was needed by local taxation, or else to cut down expenditure to such an extent as to make an equilibrium between their receipts and expenditure. (2) *Second decentralization scheme.*—A revised decentralization scheme involving large changes in the scheme of 1871 was introduced in the beginning of 1882-83 and is now in force. The principle of this revised scheme is that instead of Local Governments receiving a fixed sum of money to make good any excess of provincialised expenditure over provincialised receipts, a certain proportion of the Imperial revenue of each province should be devoted to this object. Certain heads as few in number as possible are wholly, or with minute local exceptions only, reserved as Imperial; others are divided in proportions for the most part equal between Imperial and Provincial; the rest are wholly, or with minute local exceptions only, made Provincial. The balance of transfers being against the Local Government is rectified for each province by a fixed percentage on its Land revenue (otherwise reserved as Imperial); except in Burmah, where the percentage is extended to the Imperial rice export duty and salt revenue also. The advantage of this system over that of the former Provincial scheme is that the Provincial Governments are given a direct interest not only in the provincialised revenue but also in the most important item of Imperial revenue raised within their own province. A further important change introduced by the new decentralization scheme was the modification of the power previously reserved to the Supreme Government of withdrawing such portion of the local resources as they saw fit in the event of any fiscal misfortune, such as heavy loss in the opium revenue or national disaster, such as war or famine. The resolution showed that on two occasions within a decade this power had been acted on, once on the occasion of the great famine, and again on the occurrence of the Afghan war; and while it was admitted that the circumstances of the time were peculiar, and that the strain on the finance was undoubtedly severe, it clearly pointed out that the sudden suspension of improvements in progress, the starvation of public works, and the discouragement of care and economy by requiring a surrender of their results, could not be otherwise than prejudicial. The Government of India declared therefore on the one hand that the Local Governments must look for no special aid from the Imperial Government except in the case of severe famine (and then only within certain specified limits), and on the other that the Imperial Government would make no demand on them except in the case of disaster so abnormal as to exhaust the Imperial reserves and resources and to necessitate a suspension of the entire machinery of public improvement throughout the empire. The limit to which Provincial financial responsibility was to be enforced in the event of famine was stated as follows. The current Provincial income during the period of distress was to be entirely

interest in so many of the funds and services, that the want is felt of a new term to indicate the group. By Local revenues are meant revenues derived from special sources, and devoted to special objects and not to the general purposes of the administration, whether Imperial or Provincial; the chief examples in the Presidency of this class of revenue being the funds raised under the Local Funds Act, Madras No. V of 1884, which are devoted by law to the construction and maintenance of roads and communications, the diffusion of education, the construction, repair and

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exhausted, every avoidable expense in every department being retrenched, and the public works grants being applied to famine works to the utmost limit possible. The accumulated savings of past years in excess of the ordinary working balance were to be drawn upon to two-thirds only of their total amount. Thirdly the margin of provincialised income over expenditure in normal years, i.e., the Provincial Governments' profit on the contract available for public improvements, was declared to be liable to whatever extent might be necessary in addition to the ordinary public works grant for the completion of works begun as relief works under the pressure of famine. In cases where no such need for completion remained after a famine, this third resource was to be chargeable up to one-fourth, at most, for payment of interest of Imperial loans (if any) which might have been raised to meet the excess cost of the famine in the province. (3) *Its effects.*— The effect of the scheme was to provincialise about three-fifths of the revenues and about one-fourth of the expenditure of British India, that is to say, the Provincial Governments were to have to a greater or less extent according to the circumstances of each head, an interest in, and responsibility for, their administration, the Government of India declaring their policy to be "that it was expedient that a Local Government should possess a substantial independent interest in the improvements of the revenues which it collects and the restriction of the expenditure which it incurs." (4) *Its conditions.*—The mode in which the revenues and charges were apportioned between the Imperial and Provincial Governments is shown in the tabular statement given in Vol. II, App. LXXXIII. The conditions of working are detailed in the next note. It is to be understood that this scheme refers, generally, only to items recorded in the accounts of the several provinces, whether Civil or Public Works, and does not refer to items recorded in the accounts of the Central Government only such for example as the Mint, Imperial Post Office and Telegraph Revenues, the Revenues of Ajmeer and Coorg, the Guaranteed Railways, or the East Indian Frontier, Rajpootana or Central India State Railways. (5) *Statistics for Madras.*—The sum assigned to this Presidency in 1871 for the maintenance of the transferred departments and services and to enable the Government to meet its share of the proportion of the Public Works Establishment employed on the two classes of Public Works thenceforward to be treated as Provincial, as also to purchase tools and plant in 1871-72, was Rupees 73,94,880; and the departmental receipts were estimated to produce a further sum of Rupees 8,18,100; making a total Provincial revenue of Rupees 82,12,980. The total expenditure on the same service in the previous year had amounted to Rupees 87,67,260, but as a measure of relief to the Imperial Exchequer it was found necessary to make some reduction in the expenditure of these services, and the reduction from Madras amounted to a sum of Rupees 5,54,280. Additions to the Provincial Fund were subsequently made by the Government of India for various minor services, the financial control over which was transferred from time to time to the Local Government; and the Provincial revenues in 1881-82, the last year during which the first decentralization scheme was in force, amounted to Rupees 1,08,68,430, including a sum of Rupees 4,00,000 which was a refund by the Government of India of the amount contributed by Provincial revenues in 1879-80 and 1880-81 towards the cost of the Afghan war. Excluding this special sum the Provincial revenues in 1881-82 amounted to Rupees 1,04,68,430, while the charges wholly Provincial amounted to Rupees 1,02,31,520, showing a surplus for the year of Rupees 2,36,910. Adding to this the net surpluses of previous years amounting to Rupees 3,46,510, and also the sum of Rupees 4,00,000 above referred to, and a further sum of Rupees 1,20,190 temporarily advanced to a special fund to obviate a deficit, the closing balance at the credit of Provincial revenues at the close of 1881-82 amounted to Rupees 11,03,610. In the third foot-note a running account of Provincial services is given from 1871-72 to the end of 1881-82. The fourth foot-note compares the Provincial receipts and charges of 1882-83, the first year of the new decentralization scheme, with those of 1881-82, the last year under the old scheme. The effect of the new scheme, it will be seen, was to place under Provincial control an expenditure of upwards of 222 lakhs as compared with a Provincial expenditure of less than half that amount under the old scheme.

[2] CONDITIONS FOR THE ADMINISTRATION OF PROVINCIAL RECEIPTS AND SERVICES UNDER THE PRESENT DECENTRALIZATION SCHEME.—(1) Without the previous sanction of the Government of India—" a " No additional taxation may be imposed, and no change made in any existing system of revenue management. " b " No new general service or duty may be undertaken: whenever a Local Government proposes to undertake any such new service or duty, it must satisfy the Government of India that it can provide the funds for it, temporarily, if the service or duty is temporary, and permanently, if it is permanent. " c " No appointment may be created with a pay of more than Rupees 250 a month and no addition may be made to the pay and allowances of any officer if they exceed, or would, after the addition, exceed Rupees 250 a month. " d " No appointment of which the pay and allowances are more than Rupees 250 a month may be abolished; and the pay and allowances of no such appointment may be reduced. " e " No class of grade of officers may be created or abolished; and the pay of no class or grade of officers may be raised or reduced. " f " The rates of discount upon the retail of stamps and Court-fee labels, and the local duty on spirit and drugs, must not be altered: the Governor-General in Council reserves the right of forbidding any such alterations as are likely to injure the revenues of neighbouring provinces or prove otherwise inconvenient. " g " No addition may be made to the pay or allowances of any individual officer, or class of officers, that may lead to increase in the emoluments of any public servants doing duty in the same province, whose pay and allowances are not charged under one of the transferred heads of service. The Government of India reserves the right to forbid alterations in rates of pay or allowances, which, in its opinion, would produce inconvenience in other provinces. " h " No money may be removed from the public treasury for investment, or deposit elsewhere: the Government of India, which is responsible for the provision of ways and means for the public service in all departments must always retain as at present, in its own hands, absolute and unconditional control over all money in the public treasury: a Local Government may not withdraw such money except for expenditure upon the public service. " i " No alteration must be made in the form or procedure of the public accounts. " j " No services previously rendered to other departments at the charge of the departments made over to the control of the Local Governments may be diminished, and no services previously rendered to these departments at the charge of other departments may be increased. " k " No line of through communication may be abandoned, or allowed to fall out of repair. (2) Returns are to be made quarterly, through the several Administrative Departments of the Government of India, to the Financial Department, showing every change made in the pay of any officer, every new office created, and every existing office abolished; also any unusual or extraordinary charge incurred, and any expenditure discontinued. (3) All Standing Orders and Rules of the Supreme Government are to be observed, including, in particular, the rules in the Codes of the Financial and Public Works Departments, Travelling Allowance Rules and the Rules and Circular Orders of the Comptroller-General. (4) Returns, accounts, and estimates are to be submitted to the Supreme Government in such forms, and at such times, as may be prescribed. (5) The Local Governments must keep the Governor-General in Council, in the several departments, fully informed of their executive and financial proceedings; the Governor-General in Council will not relinquish his general powers of supervision and control in any department: but His Excellency in Council will, as far as possible, avoid interference with the details of the administration of the transferred revenues and services, and any embarrassment of the provincial finances. (6) A Local Government must accept, without remonstrance, any charge which would, under the system in force before 1871-72, have been recorded, under any of the transferred Heads of Account, in the accounts of its Presidency or Province; and must not raise objections on such grounds as that the charge has originated outside the Presidency or Province, or that the Presidency or Province is not interested in it, or the like: if any doubt

working of hospitals, dispensaries, lunatic asylums, choultries, markets, tanks, and wells, and to other local purposes in the districts where the funds are raised; the Village Service Cess devoted to the payment of the village revenue and police establishments in the localities where it is raised; and the Canal and Ferry Fund devoted to the maintenance of the canals and ferries on which the tax is raised. The Excluded Funds comprise among others; Municipal, Cantonments, Port, Educational, Dispensary, Hospital, and Trust or Endowment Funds

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arises at any time, whether any charge should or should not be entered under any particular head in the accounts of any Presidency or Province, such doubt must be solved by one test only, viz., "How would it have been entered if it had occurred before 1871-72, when the powers and responsibilities of Local Governments were first enlarged?" Thus, for example, the pay or leave allowances of an officer belonging to another administration on duty or on leave in the North-Western Provinces, and drawn there, must be charged in the accounts of the North-Western Provinces: the Governor-General in Council did not intend, by the measure of 1870, and does not now intend, to introduce, or authorise, any change of practice in such matters or any inter-provincial, inter-presidential or inter-departmental adjustments, not theretofore allowed: in regard to all such transactions, the arrangements made with the Local Governments were calculated upon the basis of the system which existed before the year 1871-72. (7) The grant made to a Local Government for all the services entrusted to its administration is a consolidated grant: no claim will lie against the Imperial Treasury on the ground that the cost of any service exceeds the amount at which it was estimated in the calculation of the consolidated grant. (8) In the management of its finances, a Local Government must never absolutely exhaust its balance in the Imperial Treasury: the Government of India will not accept any estimates, or allow any transactions, by a Local Government, which involve the expenditure of more money than is at its credit in the Imperial treasury: it is the duty of every Accountant-General to take care that this condition is never infringed, and promptly to report to the Governor-General in Council any transgression of it which is not, upon his representation, immediately rectified by the Local Government addressed. (9) A Local Government may not lend money from the balance at its credit in the Imperial treasury: the Government of India will always pay every attention to any recommendation for the loan of public money in excess of the powers which are entrusted to a Local Government by law or rule; but all loans alike must be from the Imperial balances; such operations must not be mixed up with the arrangements between the Imperial and the Local Government for the collection and appropriation of the public revenues or the administration of the public services. (10) It is a general condition precedent to the delegation of all authority to disburse public money that it shall be bonâ fide for a public object; nothing must be carried out by means of the public funds for the advantage of any individual or body of private persons, unless, in accordance with some declared or established rule or principle; recognised by the Government of India: it is the duty of every Audit officer, at all times, to challenge any infringement of this principle; and every Local Government must submit, for the orders of the Government of India, any representation made to it by any Audit officer in accordance with this rule which it does not promptly accept. (11) On or before the 31st January of each year, each Local Government must forward to the Government of India in the Financial and Public Works Departments and publish in the Local Government Gazette, in detail of major heads, with such explanations as may be necessary for the due understanding of its financial administration—"a" An account showing the balance of the Local Government in the Imperial treasury at the beginning of the last complete financial year; the revenues appropriated during that year to provincial uses and the supplementary assignment from the Imperial treasury; the expenditure under provincial responsibility during that year; the balance of the Local Government in the Imperial treasury at the end of that year. "b" Revised estimates in the same detail for the current financial year. "c" Estimates in the same detail for the coming financial year. (12) The Governor-General in Council reserves power to modify, add to, or repeal these rules and conditions at any time.

[3] RUNNING ACCOUNT FOR PROVINCIAL REVENUES FROM 1870 TILL THE END OF 1881-82.

Year	Item	RS.
1871-72	Opening Balance	4,35,870
	Receipts	93,19,733
		97,55,603
	Charges	89,55,839
1872-73	Closing Balance or Opening Balance for 1872-73	7,99,764
	Receipts	92,07,342
		1,00,07,106
	Charges	94,14,505
1873-74	Closing Balance or Opening Balance for 1873-74	5,92,601
	Receipts	96,41,284
		1,02,33,885
	Charges	1,02,55,096
1874-75.	Deficit	— 21,211
	Receipts	98,83,005
		98,61,794
	Charges	98,92,855
1875-76.	Deficit	— 31,061
	Receipts	97,76,551
		97,45,490
	Charges	99,60,885
1876-77.	Deficit	— 2,15,395
	Receipts	1,01,45,411
		99,30,016
	Charges	99,38,383
1877-78.	Deficit	— 8,367
	Receipts	94,94,860
		94,86,493
	Charges	91,91,416
1878-79	Closing Balance or Opening Balance for 1878-79	2,95,077
	Receipts	1,23,55,907
		1,26,50,984
	Charges	1,23,00,668
1879-80	Closing Balance or Opening Balance for 1879-80	3,50,316
	Receipts	1,04,59,398
		1,08,09,714
	Charges	1,03,27,162
1880-81	Closing Balance or Opening Balance for 1880-81	4,82,552
	Receipts	1,04,53,456
		1,09,36,008
	Charges	1,05,89,496
1881-82	Closing Balance or Opening Balance of 1881-82	3,46,512
	Receipts	1,08,68,432
		1,12,14,944
	Charges	1,02,31,518
	Balance in hand on 31st March 1882	9,83,426

generally. It will be observed that whereas the funds levied in the rural districts under Madras Act V of 1884 are incorporated in the accounts, the Municipal Funds levied in towns are excluded. The distinction is from many points of view arbitrary. There are however certain technical grounds for a distinction.

[4] TABLE SHOWING INCREASED PROVINCIAL INCOME AND EXPENDITURE BETWEEN THE OLD AND THE NEW SCHEMES OF DECENTRALIZATION.

Income.

—	1881-82.	1882-83.	Difference.
	RS.	RS.	RS.
I. Land Revenue ...	...	1,37,21,437	+1,37,21,437
III. Forest ...	...	9,06,442	+ 9,06,442
IV. Excise ...	...	32,29,209	+ 32,29,209
V. Assessed Taxes ...	...	2,30,183	+ 2,30,183
VI. Customs ...	...	38,009	+ 38,009
VIII. Salt ...	...	25,348	+ 25,348
X. Stamps ...	...	26,04,185	+ 26,04,185
XI. Registration ...	5,88,216	2,89,723	− 2,98,493
XIII. Post Office ...	544	...	− 544
XV. Minor Departments ...	99,983	1,94,860	+ 94,877
XVI. Law and Justice ...	2,84,335	6,63,256	+ 3,78,921
XVII. Police ...	2,37,200	1,65,632	− 71,568
XVIII. Marine ...	9,092	5,311	− 3,781
XIX. Education ...	1,67,739	1,89,299	+ 21,560
XX. Medical ...	50,965	61,909	+ 10,944
XXI. Stationery and Printing ...	56,765	81,950	+ 25,185
XXII. Interest ...	2,415	2,342	− 73
XXIII. Superannuations ...	...	56,173	+ 56,173
XXIV. Miscellaneous ...	27,656	75,960	+ 48,304
XXVI. Irrigation and Navigation ...	1,26,496	1,40,463	+ 13,967
XXVII. Other Public Works ...	2,69,077	79,065	− 1,90,012
Contributions { From Imperial ...	4,00,000	...	− 4,00,000
Contributions { " Local ...	23,097	5,73,826	+ 5,50,729
	23,43,580	2,33,34,582	+2,09,91,002
Imperial Allotment ...	85,24,852	...	− 85,24,852
Total ...	1,08,68,432	2,33,34,582	+1,24,66,150

Expenditure.

—	1881-82.	1882-83.	Difference.
	RS.	RS.	RS.
3. Refunds and Drawbacks ...	2,829	99,213	+ 96,384
4. Land Revenue ...	27,203	43,79,975	+ 43,52,772
5. Forest ...	29	6,44,865	+ 6,44,836
6. Excise ...	360	98,658	+ 98,298
7. Assessed Taxes ...	...	2,827	+ 2,827
9. Customs ...	6,018	1,85,415	+ 1,79,397
10. Salt ...	11,324	...	− 11,324
12. Stamps ...	906	71,402	+ 70,496
13. Registration ...	4,19,335	2,25,789	− 1,93,546
15. Post Office ...	1,07,334	1,05,294	− 2,040
17. Administration ...	2,338	10,54,188	+ 10,51,850
18. Minor Departments ...	1,40,190	4,47,675	+ 3,07,485
19. Law and Justice ...	10,27,741	47,34,996	+ 37,07,255
20. Police ...	36,83,140	36,25,457	− 57,683
21. Marine ...	16,050	5,311	− 10,739
22. Education ...	10,45,489	11,06,397	+ 60,908
23. Ecclesiastical ...	5,086	...	− 5,086
24. Medical ...	6,38,471	10,22,783	+ 3,84,312
25. Stationery and Printing ...	4,87,847	7,25,495	+ 2,37,648
26. Political Agencies ...	455	...	− 455
27. Territorial and Political Pensions ...	549	...	− 549
29. Superannuations ...	...	8,40,274	+ 8,40,274
30. Miscellaneous ...	2,85,774	2,77,363	− 8,411
31. Famine Relief ...	4,64,030	1,35,319	− 3,28,711
33. Irrigation and Navigation ...	2,51,644	3,53,102	+ 1,01,458
34. Other Public Works ...	14,17,455	19,65,498	+ 5,48,043
Contributions { To Imperial ...	1,00,000	...	− 1,00,000
Contributions { " Local ...	89,921	1,62,950	+ 73,029
	1,02,31,518	2,22,70,246	+1,20,38,728
Provincial Surplus ...	6,36,914	10,64,336	+ 4,27,422
Total ...	1,08,68,432	2,33,34,582	+1,24,66,150

Thus Local Funds under the Act of 1884 are for the most part collected by the ordinary Government agency of the country, and by means of an entry in the usual revenue puttah; while in the case of funds raised under the Municipalities Act, the town councillors are left to collect their own resources. Moreover generally speaking the interference of Government is less frequently and less directly exercised in the case of Municipal Funds than in the case of funds under the Local Funds Act. The reason for excluding from the public accounts sent to the Government of India the funds last named, viz., Port, Educational Building, Endowment, and Cantonment Funds, is similar; the funds that is to say are regarded as specific trusts. The order of treating these subjects in the Administration Reports is partly what has just been described. The section shown there on "Gross Income and Expenditure" explains the figures of gross receipts and expenditure, and compares them with those of the previous year. Information is afforded as to the surplus of the receipts of the Presidency over its local requirements, and as to the mode in which this surplus is remitted to other Presidencies. Mention is made of the arrangements for supply of different kinds of money to the different treasuries, and their sufficiency or otherwise is noted. Important changes in account-keeping are mentioned. The next section combines for convenience the Civil Funds and Services under the first four of the heads above-mentioned. It gives to begin with a general statement, which includes incidence of taxation; and then proceeds to particular statements of the heads Land Revenue, Abkarry, Customs, Salt, and Stamps, these being the heads of principal general interest. The other sections are Imperial, Public Works, Postal, Telegraph, and Military; Provincial services treated apart; Local Funds treated apart; and Excluded Funds. It may be observed that the Government do not attempt to show a literal agreement between the audited figures put out by them in the Finance section of their Administration Report and the unaudited figures incidentally mentioned in reporting on the administration of other departments. It will be understood also that the finance chapter deals only with the financial bearings of each subject from the point of view of the Government Financial Department, leaving the administrative bearings of the same subjects to be elsewhere treated.

633. Method of Financial Administration. — The funds above-classified are controlled generally by the Local Government, and administered in detail by heads of departments or by the Board of Revenue under the supervision of Government. The Board of Revenue administer in detail the Land Revenue, Forest, Excise, Customs, Salt, Stamps, District Post, District Presses, and many of the so-called Special Funds; while Jails, Registration, Police, Education, Medical, and Marine Services, with a few of the Special Funds, are administered in detail by the respective heads of those departments. In the case of Military and Public Works the arrangements are somewhat special. For Postal and Telegraph there is no local control. In keeping its accounts the Local Government is assisted by Imperial officers, who, though subordinate to the Government of India, are required to conform to all requisitions of the Local Government which may not be opposed to the specific orders of the Government of India. The principal of these officers is the Accountant-General, who, besides his duties connected with accounts and audit, has the duty also of advising the Local Government on all matters of finance. The Accountant-General acts as general paymaster to the Local Government. He is also appointed Commissioner of Paper Currency.

634. Budgets.—At a sufficient time before the commencement of each official year heads of departments place before the Local Government an estimate of the probable income and expenditure of their departments under all heads for that year. The material thus sent in is grouped by the Local Government under some of the sub-section heads mentioned in the classification given above, or some of their sub-divisions, and budgets are prepared for those heads. The Imperial Services budget goes to the Government of India for final manipulation and inclusion in the general budget for the empire. The details of the others are not revised by the Government of India, and the Local Government is therefore competent to dispose of them finally, merely reporting results to the Government of India. But though the budgets stand thus theoretically on a different footing, they all go practically to the Government of India in one combined Provincial and Imperial

budget. For budget purposes the funds classed above as Local are called Incorporated Funds, which means funds incorporated with the Provincial budget.

635. The mode of dealing with the budgets may be seen by noting the particular case of the Provincial Services budget, where the orders of the Local Government are practically final. In this case District Collectors or other local officers supply the head of the department with approximate estimates of their receipts and expenditure for the ensuing official year. This is done about September in the current year. The subordinate estimates usually contain figures in three columns side by side, showing the actuals of the previous year; the estimate already sanctioned for the current year; and the proposed estimate for the ensuing year. The actuals in the first column are often not the audited figures as finally given by the auditing officer, but for budget purposes this cause of inaccuracy is unimportant. In some cases a "regular estimate" for the current year, consisting of the ascertained actuals of so many months of the current year, added to a newly prepared estimate for the remaining months, is added as a fourth column. The subordinate estimates prepared in this way are revised by the head of the department, in communication, if necessary, with the local officer, and are worked up into a complete budget estimate for that department, and forwarded to the Local Government with remarks and explanations. This is done usually by December in the current year. The Local Government then revises and passes on the estimates to the Accountant-General who brings together the departmental budgets into a single Provincial budget for the Presidency, which is forwarded in a combined form to the Government of India for their information. As soon as the state of the Provincial balances is ascertained, and in some unimportant cases even before that is done, the Local Government send back the departmental budgets separately to the heads of departments with final orders upon them. In some cases the budget is sanctioned as submitted; in other cases the amounts are altered to suit the exigencies of other departments, or for reasons peculiar to that particular budget. The heads of departments in turn transmit the budgets thus received, or portions of them, to the local officers concerned.

636. A sanctioned Provincial departmental budget indicates to the head of the department and to the auditing officer the limits of expenditure for the year to which it relates. The budget is comprised of various entries, according to the subjects concerned and the sub-divisions or officers composing the department; each appropriation entry is complete in itself, and cannot, under ordinary circumstances, be exceeded. On the other hand, under certain conditions any expenditure may be incurred during the year up to the amount of that entry. The main conditions are: that the expenditure shall be of a nature, such as under an ordinary construction can fairly be brought under that head of entry, and in cases where such a restriction is necessary, shall be distributed over the year in a reasonable way suitable to the circumstances; to decide as to both of which is left to the discretion of the spending and auditing officers; again that no more than certain fixed amounts shall be spent without special sanction on any one item, whatever the condition of the funds under the appropriation entry, and that in some cases no expenditure at all shall take place on certain things, for instance new establishments, without special sanction, both of which checks are provided for by standing orders of the Local Government. In all these matters the head of the department controls the subordinate officer, and the Local Government controls the head of the department. New establishments cannot be sanctioned by any authority lower than the Local Government, and general rates of pay and allowances can be altered only on the authority of the Government of India. The transfer of funds from the appropriation entry of one local officer to that of another, or from one "minor head" to another of the same officer's appropriation, can usually be effected by the head of the department, but never by any local officer. Similarly, the transfer of funds from one department to another, or from one "major head" to another of Provincial Services, can be carried out by the Local Government, but not by any head of department. If an officer finds that the funds under any one of his "minor heads" are exhausted, or are insufficient for his purposes, he applies to the head of the department, who will either provide money from such reserve as he may have at his disposal under the budget-head of "reserve," or will obtain

funds from "savings" in one or other of the methods just mentioned. In effecting transfers from "savings," the head of the department ascertains the state of the funds in other branches of his department or under other budget entries of the same branch, either by communication with the local officer himself, or by application to the accounting officer, whose books will give the necessary information. If these measures do not suffice, application must be made by the head of the department to the Government, who will then, if it thinks fit, assign funds from its own reserve.

637. Financial Powers of Executive Departments.—The financial powers of the Board of Revenue are in many respects larger than those of any other executive department; their mention here will illustrate some of the remarks given above. The officers controlled by the Board are Collectors, the Director of Revenue Settlement and Agriculture, the Commissioner of Salt and Abkarry Revenue. The Conservators of Forests and the Superintendent of Stamps; Collectors administering nearly all the subjects mentioned above as belonging to the Board. Items on which these subordinate officers can incur no expenditure without previous sanction, whatever the state of funds under the corresponding appropriation entry, are original Public Works costing more than Rupees 1,000 or repairs costing more than Rupees 2,000 in the Land Revenue and Customs Departments; the Salt and Abkarry Commissioner has the power of sanctioning estimates for both original works and repairs up to a limit of Rupees 2,000; law charges in civil suits; refunds of unauthorized collections other than law fines after two years have elapsed; office furniture costing between Rupees 50 and 100 each; binding books; press materials; office rent; and various other less important items. The Board have to go to the Government for sanction in the following cases: Salt, Land Revenue or Customs works costing more than Rupees 5,000; purchase of periodicals and books costing Rupee one and more; with various other items. No mention is here made of such conditions as are common to all departments; for instance, the prohibition of entertaining new establishments without Government sanction.

638. Disbursements.—Government money is lodged at the Presidency town with the Bank of Madras, and at Berhampore, Cocanada, Goontoor, Negapatam, Tuticorin, Calicut, Cochin, Mangalore, Ootacamund, and Bellary with its agents, under Presidency Banks Act XI of 1876. There is also a reserve treasury attached to the Currency office at Madras into which all funds in excess of what are required for immediate disbursements are placed until their removal to Calcutta or other provinces. At all other places Government money is left in treasuries under charge of Collectors of districts. There are 24 district treasuries, including those managed by the branches of the Bank of Madras, besides 333 talook and subordinate treasuries; the former are usually under the immediate charge of Treasury Deputy Collectors and the latter under the immediate charge of Tahsildars. The funds due from taxation and other receipts are paid into the various treasuries, and it is the duty of the Accountant-General to arrange by remittances of cash and other measures that the funds are duly distributed over the country in accordance with public requirements. Remittances from other Presidencies to this Presidency are very rare. The Accountant-General provides funds for all departments. If a local officer has authority to spend money and wishes to do so, he draws the sum from the nearest treasury or bank keeping Government funds. The rules for disbursement vary in different departments. Generally, however, it may be said that an officer wishing to draw cash tenders a bill or claim, and if the charge is unusual quotes the authority; if the claim is an authorized one the Treasury officer pays the money and takes a receipt from the payee, or if the business of the treasury be managed by one of the banks orders it for payment at the bank. At head-quarters the Collector delegates all his powers in connection with the treasury to the Treasury Deputy Collector; the subordinate Treasury officers at the talooks can ordinarily make payments only on the authority of the Collector or Treasury Deputy Collector. In connection with lodgment of Government funds with treasuries and banks, it should be mentioned that local officers are authorized to withdraw and retain a certain small portion of the funds under a system of permanent advances for conducting current expenditure under certain of their budget heads. The transactions of all talook and subordinate treasuries are reported

monthly to Collectors, by whom they are incorporated in the district account and forwarded monthly to the Accountant-General.

639. Treasury Cash Arrangements.—The bulk of the money in the District Treasury is in a chest under the double locks and keys of the Treasury Deputy Collector and the Cashkeeper, only a sufficient sum which should never exceed Rupees 5,000 or the day's expenditure being placed in charge of the Cashkeeper for current expenditure. As regards the amount of money to be left with the Cashkeeper the rule is that it should not be larger than is necessary for the convenient transaction of the Government business, or larger than the security given by him; and when the balance with the Cashkeeper in the evening of any day exceeds 5,000 rupees, the excess is usually transferred to the double lock store. The officer in charge is personally present when cash or stamps are taken out of, or put into, the receptacles under double lock and key. The treasury is examined monthly by the Collector, or one of his Covenanted Assistants, and a report is made to the Accountant-General as to whether the amount in it is correct. The examination is made by a Deputy Collector, other than the Deputy Collector in charge of the treasury, if it is impossible for any of the Covenanted officers to conduct the examination. Every evening the Deputy Collector in charge of the treasury signs the cash-book. He also examines the balance in the expense chest with the Cashkeeper, roughly every evening and in full detail at least once a week. The periodical detailed examination of the money in the expense chest by the Deputy Collector is always reported to the Collector. The Cashkeeper retains in his sole charge stamps to the value of Rupees 1,000 or a week's supply only. District treasuries are inspected twice a year by Collectors themselves, whose reports to the Accountant-General are communicated with his remarks to the Comptroller-General and the Board of Revenue. The Talook treasury is under the joint lock and key of the Tahsildar and Talook Sheristadar, both the keys being in the sole charge of the latter when the former is absent from head-quarters. The Talook Sheristadar examines every evening the balance in the treasury, and signs the chitta with a certificate that the balance has been found to be correct. The chitta is countersigned by the Tahsildar when he is present at head-quarters. Shroffs or subordinate Cashkeepers are never placed in charge of the keys of the treasury, either in the district or the talook. They are only held responsible for bad coin and overpayments during the day. The Tahsildar examines the balance in the chest not less than twice a month, and every time he leaves and arrives at head-quarters; and reports having done so to the Collector of the district. Talook treasuries are examined by the Collector or one of his assistants not less than once a year and a report is made to the Board of Revenue.

640. Account and Audit.—The accounts kept by treasuries and forwarded to the Accountant-General are chiefly records of receipts and disbursements, entered in prescribed forms of a more detailed nature than the budget forms. The principal return is the monthly Treasury Account. The Presidency books of the Civil Department are kept by the Accountant-General, those of the Military Department by the Controller of Military Accounts, those of the Public Works Department by the Examiner of Public Works Accounts, and those of the Postal and Telegraph Departments by the Compilers of those accounts. The accounting officers here mentioned, other than the Accountant-General, are furnished by the Accountant-General with monthly accounts of their respective departments, as appearing in the treasury accounts in different parts of the country. Such departmental accounts are treated as remittances in the Accountant-General's books. The accounts of the local Accountant-General are rendered finally to the Comptroller-General, by whom they are incorporated in the Imperial books of the Government of India. Military transactions are accounted for to the Accountant-General, Military Department, Calcutta, and by him to the Comptroller-General. Similarly for Public Works which go into the Imperial books through the Accountant-General, Public Works Department, Calcutta, and for Postal and Telegraph transactions which are adjusted through the departmental accounts branch of the Comptroller-General. Provincial and Local Public Works form part of the report of the Examiner, Public Works Accounts, but their amount is reported also to the local Accountant-General for final adjustment. The local accounting officers perform the duties of audit as well. At

the Presidency town itself disbursements of the Civil Department, except those of the nature of advances, are made after audit by an officer of the Account Department and on his orders. Elsewhere they are made in anticipation of the audit of the Account Department.

641. STATISTICS.—The table at foot [5] shows the gross income and expenditure of the past year and each of the previous years from 1875-76. The next table shows the gross receipts and payments of the Presidency during eight decades of the present century.[6] The total payments to Government in the Presidency, exclusive of tributes from native states, per head of population, compare with those in

[5] GROSS INCOME AND EXPENDITURE FOR NINE YEARS.

Years.	Income.	Expenditure.	Surplus.	Deficit.	Real results omitting Provincial and Local surplus and deficit.	
					Surplus.	Deficit.
	RS.	RS.	RS.	RS.	RS.	RS.
1875-76	9,56,34,616	7,22,84,439	2,33,50,177	...	2,25,43,662	...
1876-77	8,07,43,961	9,00,89,515	...	93,45,554	...	1,06,94,242
1877-78	7,98,74,526	11,49,09,109	...	3,50,34,583	...	3,45,74,477
1878-79	10,05,07,293	7,57,23,903	2,47,83,390	...	2,64,54,002	...
1879-80	10,28,80,336	7,37,30,124	2,91,50,212	...	3,10,01,699	...
1880-81	9,85,05,486	7,52,77,613	2,32,27,873	...	2,33,45,655	...
1881-82	9,94,76,958	7,66,75,137	2,28,01,821	...	2,35,60,195	...
1882-83	10,00,46,149	8,05,46,606	1,94,99,543	...	2,01,24,727	...
1883-84	10,11,08,095	8,20,14,966	1,90,93,129	...	1,93,48,307	...

[6] GROSS RECEIPTS AND PAYMENTS FOR THE PRESIDENCY SINCE 1800.

Years.	Revenues.	Charges.	Years.	Revenues.	Charges.
	RS.	RS.		RS.	RS.
1800-1	3,54,02,680	4,61,43,870	1841-42	5,01,52,170	4,76,24,810
			1842-43	5,08,67,590	4,82,20,480
1801-2	4,72,96,090	5,34,78,050	1843-44	5,07,41,940	4,79,74,760
1802-3	4,72,49,040	5,11,77,690	1844-45	4,99,63,290	4,96,13,040
1803-4	4,65,17,440	6,30,62,840	1845-46	5,00,60,480	4,93,60,590
1804-5	4,89,71,400	6,31,26,130	1846-47	5,13,40,450	4,93,95,880
1805-6	5,01,44,330	5,72,81,640	1847-48	5,21,03,670	4,92,75,470
1806-7	4,60,27,210	5,74,28,290	1848-49	5,15,14,530	4,67,59,980
1807-8	4,92,75,190	5,71,72,280	1849-50	5,00,59,490	4,57,42,730
1808-9	4,96,83,210	5,43,11,510	1850-51	5,08,73,330	4,64,72,260
1809-10	5,37,31,910	5,63,73,650			
1810-11	5,23,85,760	5,11,09,770			
1811-12	5,15,67,170	4,61,96,100	1851-52	5,23,32,330	4,70,01,390
1812-13	5,25,82,440	4,79,96,300	1852-53	5,31,80,780	4,82,85,230
1813-14	5,29,70,880	4,89,32,240	1853-54	4,94,75,890	5,18,63,310
1814-15	5,32,21,640	5,13,42,460	1854-55	4,91,55,750	5,40,65,960
1815-16	5,10,61,070	5,28,94,760	1855-56	5,27,32,550	5,52,30,940
1816-17	5,36,02,200	5,20,13,990	1856-57	5,45,22,930	5,16,48,670
1817-18	5,38,13,070	5,47,52,540	1857-58	5,66,20,360	6,46,95,160
1818-19	5,36,14,320	5,97,90,450	1858-59	6,24,58,380	7,49,72,480
1819-20	5,40,70,040	5,69,48,440	1859-60	6,53,42,670	8,03,62,000
1820-21	5,40,35,060	5,57,24,890	1860-61	6,61,98,040	7,19,54,060
1821-22	5,55,70,290	5,40,55,920	1861-62	6,99,00,450	7,03,41,070
1822-23	5,58,52,100	5,07,29,920	1862-63	6,82,56,450	6,47,16,510
1823-24	5,49,87,650	6,22,88,230	1863-64	7,00,40,180	6,25,44,900
1824-25	5,44,07,430	5,71,48,480	1864-65	6,99,36,820	6,45,08,810
1825-26	5,71,49,150	5,70,48,290	1865-66	7,02,86,640	6,67,89,280
1826-27	5,98,16,810	5,43,25,620	1866-67 *...	6,22,52,950	6,14,70,160
1827-28	5,34,78,280	6,00,75,970	1867-68	7,49,04,090	6,70,88,400
1828-29	5,57,50,490	5,50,22,240	1868-69	7,48,45,390	6,57,56,210
1829-30	5,41,55,870	5,25,66,470	1869-70	8,04,76,150	6,56,88,700
1830-31	5,35,82,600	5,10,70,200	1870-71	8,17,88,700	6,12,47,160
1831-32	4,47,21,370	2,16,75,740	1871-72	8,06,73,280	5,80,20,050
1832-33	4,10,80,610	4,31,24,520	1872-73	8,17,38,060	6,02,00,740
1833-34	4,35,82,070	4,38,23,680	1873-74	8,18,65,630	6,16,02,950
1834-35	4,48,00,250	4,12,87,530	1874-75	8,32,66,180	5,92,29,280
1835-36	4,59,92,610	3,83,97,580	1875-76	8,33,00,580	5,96,10,190
1836-37	4,61,83,090	4,17,27,840	1876-77	7,01,35,310	7,96,66,920
1837-38	4,81,98,900	4,29,50,360	1877-78	6,96,16,310	10,63,03,240
1838-39	4,95,30,700	4,47,17,940	1878-79	9,86,96,240	7,62,41,030
1839-40	4,97,66,150	5,02,49,650	1879-80	10,08,19,120	7,11,25,350
1840-41	4,97,46,390	4,74,93,980	1880-81	9,55,17,350	6,36,28,200

* Eleven months.

the other parts of India as shown hereunder [7] taking the latest available figures. The figures given in Vol. II, App. LVI, for some of the principal countries in the world for a recent date are given in illustration of those shown above; but comparison must be made with caution, as the term revenue is used in varying senses in the financial statistics of different countries. The receipts have been converted into Indian currency at the supposed rate of two shillings the rupee. The next table at foot [8] shows the present total receipts and payments of the Presidency classified under the main heads. The next [9] shows the details of Imperial and Provincial

[7] PRESENT REVENUE AND PERCENTAGE PER POPULATION, FOR THIS AND OTHER PROVINCES.

——	Population.	Total revenue, 1880-81.	Amount of revenue paid per head of population.
		RS.	
Bombay ...	23,395,663	11,09,35,080	4·7
British Burmah ...	3,736,771	2,32,94,430	6·2
Assam ...	4,881,426	79,20,510	1·6
Bengal ...	69,536,861	19,56,64,310	2·9
Madras ...	31,170,631	9,05,53,050	2·9
Punjaub ...	22,712,120	4,65,88,720	2·0
North-West Provinces and Oudh ...	44,849,619	8,72,74,760	1·8
Central Provinces ...	11,548,511	1,27,71,320	1·1
Total ...	211,831,602	57,50,02,180	2·7
Government of India ...	...	9,63,45,750	...
Receipts from the Military Department, Commissariat, &c.	...	1,43,96,820	...
Contribution from Native States ...	...	74,22,090	...
Grand Total ...	...	69,31,66,840	...

[8] ABSTRACT OF RECEIPTS AND PAYMENTS FOR THE PRESIDENCY FOR 1883-84.

——	Receipts.	Payments.
	RS.	RS.
Imperial and Provincial Services, Civil ...	8,33,78,175	3,33,26,569
Military Department ...	20,92,224	2,64,88,630
Public Works Department ...	2,13,324	58,15,290
Postal ...	46,52,600	50,40,726
Telegraphs ...	6,57,956	11,84,046
Local Funds ...	94,95,670	93,52,017
Excluded Funds ...	6,18,146	5,52,510
Total ...	10,11,08,095	8,17,59,788

[9] IMPERIAL CIVIL RECEIPTS AND PAYMENTS IN 1883-84.

Receipts.

	RS.
Land revenue ...	4,74,13,991
Tributes and contributions ...	34,46,430
Forests ...	9,51,778
Excise on spirits and drugs ...	66,11,984
Assessed taxes ...	4,66,275
Customs ...	11,58,598
Salt ...	1,38,55,126
Stamps ...	56,24,862
Mint ...	60
Law and Justice ...	5,80,652
Marine ...	5,446
Interest ...	6,37,949
Receipts in aid of superannuation, &c. ...	3,92,674
Gain by exchange, London ...	1,86,737
Registration ...	6,32,067
Police ...	3,30,670
Education ...	2,12,685
Medical ...	1,08,166
Public Works ...	2,02,328
Contributions from Local Funds ...	2,36,144
Miscellaneous ...	3,23,553
Total ...	8,33,78,175

Payments.

	RS.
Interest on Service Funds, &c. ...	7,61,924
Refunds and drawbacks ...	5,16,509
Land revenue ...	45,73,306
Forests ...	7,96,752
Excise on spirits and drugs ...	1,99,468
Assessed taxes ...	6,799
Customs ...	1,65,000
Salt ...	16,06,586
Stamps ...	1,55,204
Mint ...	...
Administration ...	13,10,949
Minor departments ...	4,15,148
Law and Justice ...	46,64,408
Police ...	38,52,405
Marine ...	11,217
Ecclesiastical ...	3,42,221
Medical ...	10,85,672
Political Agencies ...	2,10,348
Allowances and assignments, &c. ...	22,28,082
Superannuation, &c., allowances ...	18,38,782
Loss by exchange, London ...	23,67,820
Miscellaneous ...	4,18,547
Education ...	11,65,412
Public Works ...	28,05,069
Registration ...	4,82,632
Stationery and Printing ...	11,22,723
Contributions to Local Funds ...	2,23,586
Total ...	3,33,26,569

civil receipts and payments under account heads. The following statement [10] shows the incidence per head of population of each large item of Imperial and Provincial civil taxation roughly calculated with a view to all the circumstances; the statement is sufficiently accurate to indicate the proportion between the amounts of the taxes. Vol. II, App. LXXVII, shows the same information in detail by localities. The two lists given in Vol. II, App. LXXXIV, show in full detail all the funds at the disposal of the Madras Government and all the heads of service controlled by them, with the actuals for 1883-84. The two statements at foot [11 & 12] show approximately the course of exchange between different parts of the Presidency and between this Presidency and others.

[10] INCIDENCE OF IMPERIAL CIVIL TAXATION IN 1883-84.

	RS.	A.	P.		RS.	A.	P.
Land revenue	1	8	8	Opium	0	0	4
Excise on spirits, &c.	0	3	1	Salt	0	6	1
Sea customs on population	0	0	7	Stamps	0	2	10
Sea customs on Europeans and Eurasians ...	16	7	10				

[11] REMITTANCES BY CASH AND BILLS RECEIVED FROM AND SENT TO THE BANK OF MADRAS AND OTHER DISTRICTS DURING 1883-84.

Districts.	Remittances from districts.		Remittances from Bank of Madras and the Reserve Treasury to districts.	Remittances between districts.	
	To the Bank of Madras and the Reserve Treasury either in cash or bank transfer.	Supply bills granted on payment of money at Madras.		To what district.	From what district.
	RS.	RS.	RS.	RS.	RS.
Anantapore	9,500	...	70,000	...	8,50,000
Arcot, North	15,80,800	11,646	2,15,000	...	7,000
Arcot, South	35,28,000	5,17,620	1,04,000	1,64,000	1,06,200
Bangalore	16,17,200	1,414	20,94,400	37,000	...
Bellary	4,50,000	...	1,78,800	9,03,500	...
Canara, South	7,90,800	...	35,000	...	3,45,000
Chingleput	11,26,100	1,365	3,00,000	...	...
Coimbatore	22,15,100	...	...	27,000	7,21,300
Cuddapah	17,98,300	85,426	25,000	...	44,500
Ganjam	25,30,000	...	79,200	...	34,000
Godavery	44,76,900	27,881	1,91,900	50,000	25,000
Kistna	41,56,100	2,09,724	16,000	53,000	50,000
Kurnool	11,01,600	7,016	87,000	...	50,000
Madras	26,87,700	...	...	...	...
Madura	28,52,800	33,386	75,000	1,500	1,10,000
Malabar	14,90,600	...	3,09,200	4,51,100	6,25,000
Nellore	22,17,000	3,07,999	1,35,200	...	...
Neilgherries	38,000	...	60,000	14,67,600	3,700
Salem	20,10,500	...	300	...	70,000
Tanjore	78,45,900	1,33,490	...	600	4,88,000
Tinnevelly	39,85,700	2,43,876	2,73,000	28,000	600
Travancore	4,91,600	...	...	2,49,000	...
Trichinopoly	3,04,600	49,007	50,000	1,40,000	...
Vizagapatam	3,01,900	...	2,20,400	16,000	...
Total ...	4,96,06,700	16,29,850	45,19,400	35,30,300	35,30,300

[12] REMITTANCES BY CASH AND BILLS RECEIVED FROM AND SENT TO OTHER PRESIDENCIES DURING 1883-84.

Districts.	Received from other Presidencies.	Sent to other Presidencies.
	RS.	RS.
Vizagapatam	3,500	2,300
Bellary	...	4,300
South Canara	...	9,900
Tanjore	...	11,000
Ganjam	6,800	12,300
Godavery	1,000	15,700
Kistna	10,700	14,100
Bank of Madras	9,50,000	1,96,15,600
Reserve Treasury, Madras	8,58,700	74,20,800
Malabar	...	2,100
Tinnevelly	800	...
Total ...	18,31,500	2,71,08,100

(b) *Imperial.*

642. INTRODUCTION.—The funds and services which may be classed under this head of control are assigned for purposes which are regarded artificially at any rate as having an exclusively imperial interest; and in administering them the Local Government may be considered as acting in the capacity of agents to the Government of India. The funds are enumerated with details as to their nature in part "a" of Vol. II, App. LXXXIV, and the services similarly in part "b." The roman and arabic figures attached to the items in the appendix relate, as mentioned above, to the Imperial classification employed for budget and general purposes. The Imperial civil budget goes up to the Government of India incorporated with other civil budgets, though it is theoretically distinct. The Accountant-General's administration report consolidates the figures in the same way. The budgets for the Public Works, Postal, Telegraph, and Military Departments are sent to the Government of India each separately. The following are some general remarks on each of these heads. It has already been observed that the two series of funds and services agree only occasionally, and in a technical sense are entirely apart.

643. CIVIL.—The items under this class since the last decentralization scheme are not numerous. The largest receipt is from tributes and subsidies from the Mysore, Travancore, and Cochin native states. Various salaries are debited to Imperial Civil heads, as can be seen from the appendix. The heads Gain by Exchange and Loss by Exchange are adjusting heads rendered necessary by the fact that the accounts of the Home Government are kept in the English, and those of the Indian Government in the Indian currency. The value of provincial stores, &c., is debited to the proper heads at the fixed rate of exchange, but the per contra credit afforded to the London account is at the rate of 2 shillings per rupee, and the difference between this smaller sum and the debit to Provincial is credited to Gain by Exchange. On the other hand the amount of Secretary of State's bills drawn on India is debited to account with London at the rate of 2 shillings per rupee, the difference between the smaller sum thus obtained and the larger sum actually paid being charged to Loss by Exchange.

644. PUBLIC WORKS.—The Public Works Department executes works for Provincial and Local Funds as well as for Imperial Funds. A large proportion of the works are however for the latter, and it was for executing these Imperial works that the department was primarily designed. Moreover the Public Works Account Department is to a certain extent an Imperial establishment, the superior officers of the department and all newly-appointed members of the Accountant establishment being available for service in any part of British India. The present remarks relate to Imperial Public Works Finance and Account, but, except in minor details, the procedure with respect to Public Works accounts under Provincial and Local Funds is the same.

645. Two separate budget estimates of Imperial Public Works receipts and charges are prepared annually; one for Irrigation works, including embankment and conservancy of rivers, the other for Military, Postal, and Telegraph works. The irrigation budget is framed by the Chief Engineer for Irrigation in communication with the Superintending Engineers. The budget estimate for Imperial works other than irrigation is prepared by the Chief Engineer, Buildings and Roads Branch, in communication with the Superintending Engineers and the heads of the Military, Postal, and Telegraph Departments. Both budgets, after approval by the Local Government, are submitted about the beginning of January to the Government of India, by whom they are finally passed. In these budgets a specific assignment of funds is made for each of the larger works to be undertaken or continued during the year, and special establishments are estimated for in detail; but the charges for general establishments for administrative and executive purposes are provided for by a percentage on the estimate for works, and repairs are provided for by lump sums placed at the disposal of the local officers of the department. Modifications of the budget are made from time to time during the currency of the year to which it relates. Increases and reductions of the total grants and important transfers can be made only by the Government of India; while transfers of minor importance are made by the Local Government.

646. Each budget, when sanctioned by the Government of India, is virtually a letter of credit in favour of the Public Works Department current during the year to which the budget relates. At the end of the year the credit lapses. On receipt of a budget, the local Accountant-General holds the aggregate amount of the grants at the disposal of the Public Works Department; and to the extent of the aggregate amount of all such grants (including those made in Provincial and Local Fund budgets) he issues letters of credit on the Government treasuries in favour of the disbursing officers of the Public Works Department, on applications made from time to time through the Examiner of Accounts. The Accountant-General regulates only the total issue of letters of credit limiting the total issue to the aggregate of all Public Works grants; the Examiner regulates the issue in detail, limiting the credit of each disbursing officer to the aggregate of assignments made on account of charges to be incurred by him. All miscellaneous receipts realized by a Public Works officer are at once paid into a Government treasury to a separate account against which he is not allowed to draw. The expenditure of each officer is thus limited to the amount of letters of credit granted in his favour; and the aggregate expenditure of the department is therefore limited to the aggregate of all grants made by competent authority. The system of detailed appropriation prevents expenditure on account of any fund in excess of the grant made from that fund. The disbursing officers of the department are the officers in charge of executive divisions and their subordinates. The executive division is the recognized unit; and the officers in charge of these divisions, of which the number is thirty-eight, are the responsible disbursers. It is in their favour that letters of credit are granted on treasuries; and it is they who account to the Examiner for all receipts realized and expenditure incurred within their several divisions. They make such advances as may be necessary to their subordinates, and their subordinates account to them. They also make payments to officers of other departments to enable them to carry out such public works as may be entrusted to them.

647. As just stated, the subordinate executive agents in each division account to the officer in charge of the division for all expenditure incurred by them. Their accounts are of the simplest description, being chiefly copies of their cash-books. The classification of receipts and outlay and the compilation of the accounts of the Executive Engineer and his subordinates into one set of divisional accounts is carried out at the head-quarters of the division; a responsible accountant being attached for this purpose to each division. Every month the Executive officer submits to the Examiner of Public Works Accounts a classified abstract of his receipts and expenditure supported by schedules giving such details as are necessary for statistical purposes. Officers of other departments, technically called Civil officers, who are entrusted with the execution of public works, account every month directly to the Examiner for advances received and outlay incurred by them. The Examiner compiles the accounts received both from Civil officers and from Public Works officers into one general account for the whole Presidency, and submits it to the Accountant-General, Public Works Department. This monthly account of the receipts and disbursements of the department, submitted to the Government of India, is classified under the heads shown at foot.[13]

648. In the foot-note [14] are given the Imperial Public Works receipts and payments for five years.

649. POSTAL.—The receipts and charges of the Postal Department are classified and compiled at the Central Office in Calcutta. The entries in the Madras accounts represent merely the receipts at civil treasuries from, and the payments made to, officers of the department as distinct from the revenue and expenditure of the department. The Director-General of Post Offices in India prepares one budget estimate for all India for the receipts and expenditure of the Postal Department. Within the limit of this estimate, the Comptroller of Post Offices sends the local Accountant-General a monthly requisition statement showing the sums required at each treasury to meet the ordinary establishment charges and the payments to be made on money orders and on account of refunds of Postal Savings Bank Deposits. The Accountant-General thereupon issues the necessary letters of credit on the treasuries. The above remarks do not apply to payments

on account of the district post which is maintained from Provincial Funds. The expenditure on this account appears in its proper place in the Provincial accounts. The receipts and charges of this department for the last five years are shown at foot.[15]

650. TELEGRAPH.—The arrangements for this department are similar to those just described for the Postal Department, the budget estimate in this case being prepared by the Director-General of Telegraphs in India. The Accountant-General receives a monthly requisition for credits on account of establishment and other charges at the Presidency town and for construction and large repair charges throughout the Presidency. For other charges an annual assignment is granted on each treasury by the Accountant-General at the instance of the Director-General. The receipts and charges of this department for the last five years are shown at foot.[16]

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[13] IMPERIAL PUBLIC WORKS ACCOUNT HEADS.

Receipts.

Irrigation.
- Receipts on account of Capital Productive Works.
- Receipts on account of Ordinary Public Works.
- Receipts on account of Ordinary Productive Public Works.
- Receipts on account of Agricultural Works.

Imperial (other than Irrigation).
- Military.
- Other Services.

Charges.

Irrigation.
- *Capital, Productive.*
  - Works.
  - Establishment.
  - Tools and Plant.
  - Suspense.
- *Ordinary Capital.*
  - Works.
  - Establishment.
  - Tools and Plant.
  - Profit and Loss.
  - Suspense.
  - State outlay on Guaranteed Irrigation Companies.
- *Ordinary Productive.*
  - Extensions and Improvements.
  - Maintenance and Repairs.
  - Establishment.
  - Tools and Plant.
  - Profit and Loss.
- *Agricultural.*
  - Works.
  - Repairs.
  - Establishment.
  - Tools and Plant.
  - Profit and Loss.
  - Suspense.

Imperial (other than Irrigation).
- *Military.*
- Other Services.

} with the same sub-divisions as in the case of *Agricultural.*

[14] IMPERIAL PUBLIC WORKS RECEIPTS AND PAYMENTS FOR FIVE YEARS.

Years.	Receipts.	Charges.	Difference.
	RS.	RS.	RS.
1879-80	2,55,465	44,71,844	+ 42,16,379
1880-81	1,86,028	46,11,148	+ 44,25,020
1881-82	2,38,599	43,03,189	+ 40,64,590
1882-83	2,63,747	54,92,996	+ 52,29,249
1883-84	2,13,324	58,15,290	+ 56,01,966

[15] RECEIPTS AND CHARGES OF THE POSTAL DEPARTMENT FOR FIVE YEARS.

Years.	Receipts.	Charges.	Difference.
	RS.	RS.	RS.
1879-80	13,52,826	11,89,791	− 1,63,035
1880-81	24,06,672	28,74,280	+ 4,67,608
1881-82	33,68,152	37,87,802	+ 4,19,650
1882-83	40,63,139	46,71,802	+ 6,08,663
1883-84	46,52,600	50,40,726	+ 3,88,126

[16] RECEIPTS AND CHARGES OF THE TELEGRAPH DEPARTMENT FOR FIVE YEARS.

Years.	Receipts.	Charges.	Difference.
	RS.	RS.	RS.
1879-80	5,71,571	10,52,257	+ 4,80,686
1880-81	5,94,501	10,40,232	+ 4,45,731
1881-82	5,94,228	12,16,189	+ 6,21,961
1882-83	6,63,284	11,17,921	+ 4,54,637
1883-84	6,57,956	11,84,046	+ 5,26,090

651. MILITARY.—The pay of the Army, both European and Native, and the pay and cost of all military establishments are drawn from Government treasuries. The sums which are entered as military receipts in the Civil Department are separately accounted for, and are not drawn against for these purposes. The estimates of expenditure on account of military establishments and the pay of troops are framed as a budget by the Controller of Military Accounts. When this budget is passed by the Government of India, the Controller applies to the Accountants-General in the several provinces where the Madras Army serves for the grant of cash assignments or letters of credit, subject to its limitation, and under their orders the several treasury officers within their jurisdiction hold in readiness the funds necessary to meet military demands. For British regiments of cavalry and infantry the assignments are made in favour of Regimental Paymasters, who take up their money requirements from the nearest civil treasury; for batteries of artillery, native regiments, and military establishments, the assignments are made in favour of the Presidency Paymaster, who pays on submission of monthly vouchers. Detailed accounts of military expenditure are rendered monthly by the Controller to the Accountant-General, Military Department, with the Government of India. The receipts and charges of this department for the last five years are shown at foot.[17]

(c) *Imperial and Provincial combined.*

652. INTRODUCTION.—These form the bulk of the funds and services now controlled by the Government. They are enumerated with details as to their nature in Vol. II, App. LXXXIV and the reason for grouping them together is explained in the preliminary remarks. The budget for these funds and services goes to the Government of India in the general civil budget of the Local Government. The new decentralization arrangements having been in force since 1882-83 only, it is not possible to show receipts and charges separately under this group for a series of years. The following are some remarks as to the more important of the funds and services, as far as they can be dealt with together.

653. DIFFERENT HEADS OF FUNDS AND SERVICES.—The receipts under land revenue are revenues of which land is the primary source. They embrace all collections on account of settled demand, the principal items falling under Permanently settled, Ryotwarry, Shrotriem Jody, and Miscellaneous. The item "Permanently settled" consists of peshcush charged on zemindarries, ancient and proprietary, jagheers, mootahs, and polliems. "Ryotwarry" means settlements made directly with the ryots. "Shrotriem Jody" is quit-rent on shrotriem and inam entire villages. Sale proceeds of waste lands, receipts of all kinds on account of redemption of land revenue, and all items of land revenue which are not included in the annual revenue settlement and which are of a fluctuating character, are shown as miscellaneous receipts. Pearl-fisheries are included technically under land revenue. The gross revenue collected in the districts is brought to account; and the practice of liquidating stipendiary allowances, or making any other payments by deductions from the State revenue, is prohibited, except in cases where the special sanction of the Government has been received. Four-fifths of the charges on account of salaries of Collectors and their deputies and assistants, including establishments and contingencies; and the whole of the Settlement, Inam Commission, and Revenue Survey charges appear under this head. The remaining one-fifth of the charges on account of the salaries of Collectors and their deputies and

[17] RECEIPTS AND CHARGES OF THE MILITARY DEPARTMENT FOR FIVE YEARS.

Years.	Receipts.	Charges.	Difference.
	RS.	RS.	RS.
1879-80	19,43,894	2,96,95,652	+ 2,77,51,758
1880-81	19,12,696	2,84,37,081	+ 2,65,24,385
1881-82	18,95,789	2,68,03,400	+ 2,49,07,611
1882-83	18,86,320	2,69,36,345	+ 2,50,50,025
1883-84	20,92,224	2,64,88,630	+ 2,43,96,406

assistants including establishments and contingencies is exhibited under "Law and Justice." The incidence of land revenue in the different districts is shown in Vol. II, App. LVII.

654. The head, Excise on Spirits, &c., otherwise called Abkarry, exhibits on the receipt side all taxes, duties, and fees levied on the manufacture, distillation, or sale of spirituous, intoxicating liquors and drugs. The charges are mainly for establishment and the cost of manufacturing or purchasing liquors in the town of Madras.

655. The receipt head of Assessed Taxes is opened for collections under assessed taxes levied imperially. When the income-tax was in force the receipts consisted of collections levied on personal incomes, profits, &c. The income-tax was first introduced in 1860, discontinued in 1865, revived in 1869, and discontinued again in 1872. The rate varied from year to year, and in 1871-72 it was one per cent. and affected only incomes exceeding 750 rupees per annum. The revenue from income-tax raised in this Presidency between 1860 and 1871 was as shown at foot.[18] In 1872-73 the tax was levied on incomes exceeding Rupees 1,000 per annum at 2 pies in the rupee or $1\frac{1}{24}$ per cent. under Act VIII of 1872. The tax was collected by the land revenue establishments, but a small additional expenditure was incurred every year on account of the salaries of clerks employed for keeping accounts and assisting the Collectors in issuing processes. The corresponding tax now in force is the License-tax under Madras Act III of 1878, with similar departmental arrangements.

656. Transit, import, and export duties, and fees, fines, and forfeitures in the Customs Department are shown as receipts under the head of Customs. It is sub-divided into two sections, Sea Customs and Land Customs; the first including import and export duties, and the second transit and frontier duties. The charges exactly correspond.

657. The sale-proceeds of salt and collections connected with the salt monopoly, including departmental fines and fines imposed and collected by the Criminal Courts as punishments for infractions of the laws relating to the salt revenue and refunds on account of unexpended charges, &c., and the excise duty levied upon salt manufactured and sold under license by private persons in the South Canara district are shown as receipts under this head. Sea and land customs duty on salt is also brought to account under this head. To this head are debited charges connected with the manufacture and storage of salt and of its superintendence; the salary and allowance of fixed and temporary officers employed in the department, with their establishments and contingencies; charges for police guards; the compensation paid for lands taken up for the manufacture of salt; and other ordinary and extraordinary expenditure arising out of the trade. The construction and repair of petty works exclusively for the benefit of the department or for the convenience of the traders and others resorting to the salt depôts on business are also here debited.

658. Sale-proceeds of stamps of the Stamp Department, stamp duties and penalties levied on unstamped or insufficiently stamped deeds, together with any other sundry receipts which may be connected with the department, are credited to the head of Stamps. Recoveries made for cost of suits 'in formâ pauperis' are credited to Law and Justice. The charges include commission to licensed vendors, and all charges incidental to the department.

659. Under the receipt head of interest is shown interest received on advances on arrears of revenue and on loans to public bodies, native states, or private

[18] AMOUNT COLLECTED FOR INCOME-TAX.

Year	Rate	RS.	Year	Rate	RS.
1860-61	4 per cent. on incomes above 500 rupees and 2 per cent. below that	5,42,914	1865-66	...	6,70,548
1861-62	Do. do. do. ...	25,48,110	1866-67	...	13,911
1862-63	3 per cent. ...	23,18,250	1867-68	...	215
1863-64	Do. ...	16,46,522	1868-69	...	...
1864-65	Do. ...	14,65,652	1869-70	$1\frac{1}{2}$ per cent. ...	11,58,531
			1870-71	$3\frac{1}{8}$ do. ...	22,33,147
			1871-72	$1\frac{1}{24}$ do. ...	9,88,593

individuals. There is also a charge head bearing a corresponding name, with charge for interest on Service Funds, Savings' Bank Deposits, and certain local loans on which the Government has agreed to pay interest.

660. Under receipts in aid of superannuation are included subscriptions to the defunct Military and Medical Service funds, and contributions for pensions and gratuities made by officers lent for foreign service or employed by the Court of Wards, together with the capitalized value of pensions granted to Local Fund employés; these are the principal items. The charges under the head Superannuation consist simply of pensions and gratuities to Government servants in the several departments.

661. Refunds represent repayment of revenue or receipts erroneously collected. The most important at present are land revenue and stamp refunds, and refunds of Magisterial fines ordered by Appellate Courts. Drawbacks represent the portion of customs revenue due by law to the exporter or importer for re-exportation or re-importation.

662. The charge head of Administration embraces salaries and allowances of the Governor and Members of Council; the household establishment of the Governor; the tour expenses of the Governor; the establishment of the Board of Revenue; the Secretariat establishments of the Government, excepting Public Works Department but including Translators' Offices; the establishment of the offices of Account and Audit; the charges connected with the Currency Department; and the payments made to the Bank of Madras for conducting Government Treasury and Savings' Bank business, and for the management of the public debt.

663. The head of Minor Departments is a charge head, and comprises the charges of the smaller departments engaged in administration not specified in separate heads. For instance, Meteorology, Public Observatories, Examinations, Emigration, Cinchona and Tea plantations and nurseries, Census, Public Exhibitions and Fairs, Gazetteer, Donations to scientific societies, &c. All expenditure connected with the improvement and development of the resources of the country comes under this head.

664. Allowances and Assignments is the charge head for allowances and assignments under political treaties and public engagements. The sub-heads are Territorial and Political Pensions, Inamdars, Pensions in lieu of resumed lands, Compensations, Charitable allowances, and Miscellaneous.

665. Public debt is the generic term for accounts kept (1) of debt incurred by the Government temporarily or permanently, and of debt discharged by the Government; (2) of loans and advances made by the Government and of debts owing to Government; (3) of receipts and payments which are recovered under the provisions of the law and otherwise in the public accounts, but which are not payments due by Government or revenue; (4) of certain funds not incorporated in the public accounts, namely, Municipal, Port, Educational Building, Endowments, and Cantonment Funds; and (5) of remittance transactions between the various Governments and departments in India.

(d) *Provincial.*

666. Introduction.—These items in which the Supreme Government has no direct financial interest are less numerous than the last class. Otherwise the same remarks apply as in that case.

667. Different Heads of Funds and Services.—The receipts under Law and Justice include all fees, fines, and forfeitures of the Judicial and Magisterial Departments, including those imposed by Judicial officers and officers of other departments acting magisterially under the Abkarry and Stamp Acts; sale-proceeds of unclaimed and intestate property; and fees when realized in cash. The charges comprise the following:—High Court, including Sheriff of Madras; Law Officers; Administrator-General; Coroner's Court; Justices of the Peace; Civil and Sessions Courts; Courts of Small Causes; Criminal Courts (including the

one-fifth charges referred to under Land Revenue); Special Assistants and Governor's Agents; and Cantonment Magistrates.

668. The receipts under Forest include sale of, and seigniorage on, timber, including drift and waif wood, rent of sandal-wood farms, sale of smuggled wood, &c. Fines under the Forest Law, when levied by Magisterial officers, are credited to "Law and Justice," and when levied by Forest officers, without the interposition of the Magistrate, are credited to "Forest Revenue." The establishments, contingencies and working expenses of the Forest Department come here as charges. Establishments and contingencies are paid for like any other cash charges; working expenses are defrayed by cheques drawn by Forest officers, the amounts being charged direct to the Forest grant, and adjusted in due course by detailed bills. Roads made exclusively for the development of Forest revenue are treated as Forest charges. The head Police gives on the charge side the cost of the Inspector-General of Police and of the entire Force employed at the Presidency Town and in the districts, the portion of it defrayed by Railways and other public or private bodies being credited per contra. The charge head Education gives the salaries of the Director of Public Instruction and Inspectors of Schools and their establishments as well as the cost of all Colleges and Schools including Grants-in-aid and other charges, the fees levied from pupils being credited to the receipt head of Education. The charge head Medical likewise gives the salaries of the Surgeon-General with the Government of Madras and of the Commissioned and Warrant Medical Officers and Subordinates employed in the Civil Department and in Civil hospitals and dispensaries as well as the charges of the Sanitary Commissioner and the Vaccine Department, recoveries of portions thereof from Municipalities and from patients resorting to hospitals being credited to the receipt head of Medical. The Cattle Pound Fund was originally inaugurated under the Imperial Act III of 1857, which was repealed by Act I of 1871. The income of the fund is made up of fines paid on stray cattle and sale-proceeds of unclaimed cattle. It is expended in the remuneration of pound-keepers and in the construction and repair of pounds, and the net surplus remaining is required by law to be applied to the construction and repair of roads and bridges and to other purposes of public utility. A half of the surplus is paid to Local and Municipal funds for these purposes, and the other half is appropriated to the Government farms at Sydapett for agricultural education, &c. A separate account is kept of the receipts and disbursements in view to making the distribution of the balance above described. Otherwise the receipts are so entirely at the disposal of the Government for general purposes that it would not be necessary to treat them as constituting a fund any more than education receipts or medical receipts. In 1871-72 4,594 pounds were maintained, which increased to 5,616 in 1877-78, and to 5,827 in 1882-83. The pounds are very unequally distributed over the districts, as a condition of the establishment or retention of a pound is that it shall be self-supporting. As regards establishment, the head of the village is by law the ex-officio pound-keeper. In 1875-76 Government fixed the remuneration of pound-keepers, as to which great diversity of practice prevailed, at a uniform rate of 50 per cent. on collections for all districts except the Neilgherries. In 1874 Government allowed the employment of a pound goomasta on 10 rupees a month in such of the talooks of each district in which one may be considered necessary, and these are now being gradually entertained.

(e) *Local.*

669. INTRODUCTION.—These funds and services have no separate numbers attached to them in the Imperial scheme of accounts, but items composing them are credited and debited to various heads in that scheme. The items however are given separately with the word "Local" marked against each.

670. DIFFERENT HEADS OF FUNDS AND SERVICES.—A description of the nature of the Local Funds lately under Madras Act IV of 1871 and now under Madras Act V of 1884 and of the Boards which administer them has been given under Chapter III. A general supervision only is exercised by the Local Government, and the funds may be described as funds raised locally, administered locally, and administered

for strictly local purposes. The balance sheet at foot [19] for 1883-84 will show the ordinary heads of receipts and charges.

671. The assets of the Village Service Fund are derived chiefly from the cess collected with the land revenue under Madras Act IV of 1864 in the districts where the Act has been introduced, from the deductions made from the land revenue in some districts on account of village service and which the Government are pledged to continue for various reasons, and from the sums charged for the enfranchisement of village service inams. In districts, where the Act has not been introduced, the old mirass or fees paid by the people as remuneration to the village officers are collected and credited to the fund. The object of the fund is to improve the pay of the village servants, and to increase and alter their number so as to meet properly the requirements of the different villages. Act IV of 1864, which is introduced concurrently with the new settlement in each district, is as yet in operation only in Godavery, Kistna, Kurnool, Trichinopoly, Salem, Chingleput, Nellore, Cuddapah, North Arcot, South Arcot Neilgherries, South Canara, and Tinnevelly. The rates of cess levied are as follows:—Godavery, 8 pies; Kurnool, 10 pies; South Canara, 6 pies; and all the other districts one anna. As the cess was collected before the re-organization of the village establishments, there are large surpluses in a few districts.[20]

672. An irrigation cess is paid voluntarily by ryots holding lands under certain river-channels in lieu of customary labor formerly supplied by them. It exists in Trichinopoly, Tanjore, Salem, and Coimbatore. It has gradually died out in Madura owing to the want of any law to enforce the payment.

673. The Canal and Ferry Fund is raised under Madras Act I of 1870, and is made up of tolls and license fees on canals, lines of navigation, and ferries. The money is expended on the construction, improvement, repair, maintenance, and

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[19] LOCAL RECEIPTS AND PAYMENTS FOR 1882-83.

Receipts.

	RS.	RS.
Allotments from		
Provincial services	1,47,758	
Special funds	2,50,884	
		3,98,642
Rates and Taxes—		
Cess on lands	42,15,171	
Tax on houses	......	
Tolls on loads, &c.	3,86,662	
		46,01,833
Fees in schools and training institutions		36,862
Contributions from Municipalities ...		6,385
Receipts of Endowed Foundations—		
Educational	3,600	
Hospitals and dispensaries ...	16,958	
Choultries	2,34,891	
Market rents	56,876	
Miscellaneous	3,749	
		3,16,074
Miscellaneous—		
Miscellaneous fees, fines, rents, sales, and contributions	1,23,693	
Public Works receipts and refunds.	76,037	
		1,99,730
Total receipts ...		55,59,526
Balance, 1st April 1883		29,91,221
Grand Total ...		85,50,747

Charges.

	RS.	RS.
Public Works—		
Communications	28,52,383	
Civil buildings	1,30,402	
Miscellaneous public improvements.	1,64,134	
Establishment	5,50,157	
Tools and plant	59,464	
Contributions, &c.	25,537	
		37,82,077
Education—		
Inspection	71,800	
Local Fund schools	3,11,155	
Grants-in-aid	2,56,059	
Books	15,167	
Contributions	7,099	
		6,61,280
Medical and Sanitation—		
Hospitals, dispensaries, and medical practitioners	2,80,556	
Vaccination	1,34,075	
Sanitary establishments and cleansing tanks and wells	2,78,618	
Markets, choultries, &c.	2,11,782	
Contributions, &c.	1,29,194	
		10,34,225
Miscellaneous establishment and contingencies		1,86,952
Extraordinary repayment to Provincial Funds of Famine Dues		4,10,238
Total charges ...		60,74,772
Balance, 31st March 1884		24,75,975
Grand Total ...		85,50,747

[20] VILLAGE SERVICE RULES HAVING THE FORCE OF LAW.—Under Act IV of 1864, section 11 (Cess in lieu of village fees), the following have the force of law:—Extension of Act to (1) Trichinopoly district—Fort St. George Gazette, 20th December 1864. (2) Godavery district. (3) Kurnool district—Fort St. George Gazette, 15th June 1869. (4) Salem district—Fort St. George Gazette, 21st March 1871. (5) Tinnevelly district—Fort St. George Gazette, 26th November 1872. (6) Sydapett talook, Chingleput district—Fort St. George Gazette, 9th March 1876. (7) Other talooks of Chingleput district—Fort St. George Gazette, 5th August 1879. (8) Masulipatam portion of the Kistna district—Fort St. George Gazette, 6th August 1878. (9) Nellore district—Fort St. George Gazette, 18th March 1879. (10) Re-imposition of cess in four talooks of Tinnevelly in which it had been suspended—Fort St. George Gazette, 22nd June 1880. (11) Reduction of cess in two villages in Ambasamoodram talook, Tinnevelly district—Fort St. George Gazette, 10th August 1880. (12) Cuddapah district—Fort St. George Gazette, 4th January 1881. (13) Wallajahpett talook, North Arcot district—Fort St. George Gazette, 13th June 1882. (14) Chidambaram talook, South Arcot district—Fort St. George Gazette, 19th September 1882. (15) South Canara district—Fort St. George Gazette, 5th December 1882.

extension of the channels and ferries to which the provisions of the Act may be applied. As yet the Act is in operation only as regards certain ferries in the Godavery, Kistna, Tanjore, Malabar, South Canara, Cuddapah, South Arcot and Trichinopoly districts, and the salt canal from Negapatam to Vedaranyam, to which it was extended in 1874-75.[21]

674. The District Road Fund of Bhadrachellam and Rekapully talooks is formed by a cess of 2 per cent. levied on the land revenue, and is expended in making roads. The fund came into the Madras books on the transfer of the two talooks from the Central Provinces in 1874-75.

(f) *Excluded.*

675. Introduction.—These funds and services are excluded altogether from the accounts in the Imperial scheme, for the reasons already stated.

676. Different Heads of Funds and Services.—Municipalities merely bank with the Accountant-General, and he has no account of their receipts and charges. Municipal administration is treated of under chapter III of this volume.

677. The Port Fund consists of dues and fees levied under Act XII of 1875, and from it a portion of the port establishments and other charges are defrayed. This fund is constituted under section 47 of the Indian Ports Act. The rules and notifications under the Act which have the force of law have been shown under the article "Marine." To this fund are also taken the receipts and charges under the Madras Harbour Dues Act VI of 1882 and the Cocanada Port Dues Act III of 1883.

678. The Cantonment Fund is formed under section 19 of Madras Act I of 1866, and its revenue is derived from funds levied under section 17 of the Act, from pound collections and sale of grass and other produce reared within the cantonments. The fund is expended on sanitary establishments and works of public utility within each cantonment. The rules having the force of law made under sections 17, 19 and 40 of the Act are given in the article "Military."

679. The University Fee Fund is formed under Section XV of Act XXVII of 1857 and consists chiefly of fees levied from the Candidates for the several University Examinations, the charges whereof are met from the fees.

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[21] Canal and Ferry Rules having the force of Law.—*Under Act I of 1870*, sections 2, 5, 14, 20, 22, 23 and 31 (Canal tolls and ferries), the following have the force of law :—(1) *Sections 2, 14 and 5—Application of Act to certain ferries* in the Tanjore district and Scale of Fees—Revenue Notifications, Fort St. George *Gazette*, dated 17th January 1881, and 21st May 1872. (2) Section 2—Application of Act to Vedaranyam canal in the Tanjore district—Revenue Notification, Fort St. George Gazette, 30th June 1874. (3) Section 23—A rule issued for ferries in the Tanjore district—Revenue Notification, Fort St. George Gazette, 15th December 1874. (4) Sections 2 and 14—Application to certain ferry in the South Arcot district and Scale of Fees—Financial Notification, Fort St. George Gazette, dated 11th March 1873. (5) Application to certain ferries in Kistna district and Scale of Fees—Revenue Notification, Fort St. George Gazette, dated 4th June 1872; dated 15th June 1880; dated 14th December 1881. (6) Application to a certain portion of the Kistna river in the Kistna district, and Scale of Fees—Revenue Notifications, Fort St. George Gazette, dated 23rd August 1870; dated 16th May 1871. (7) Application to a certain ferry between the Godavery and Kistna districts and Scale of Fees—Revenue Notification, Fort St. George Gazette, 19th July 1881. (8) Section 22—Ferry rules applicable to the Kistna district—Revenue Notification, Fort St. George Gazette, 4th January 1881. (9) Sections 2, 14 and 22—Application to certain ferries in the Godavery district and Scale of Fees and Rules—Revenue Notifications, Fort St. George Gazette, 15th September 1874, and 30th June 1874. (10) Extension to certain Ferries in the South Canara district and Scale of Fees and Rules—Revenue Notifications, Fort St. George Gazette, 21st January 1879, and 17th February 1880. (11) Application to certain ferries in the Malabar district and Scale of Fees and Rules—Revenue Notifications, Fort St. George Gazette, 18th February 1879; 17th February 1880; and 25th January 1881. (12) Application to certain ferries in the Trichinopoly district and Scale of Fees and Rules—Revenue Notification, Fort St. George Gazette, dated 4th January 1881. (13) Application to certain ferries in the Cuddapah district and Scale of Fees and Rules—Revenue Notifications, Fort St. George Gazette, dated 5th October 1880, and 7th December 1881. (14) Section 23, rules for the regulation of the navigation of the Buckingham Canal—Public Works Department Notifications, Fort St. George Gazette, dated 17th September 1880, and 23rd February 1881. (15) Revised Rules for the regulation of the navigation of the Godavery and Kistna Delta canals—Public Works Department Notification, No. 35; Fort St. George Gazette, dated 13th June 1882. (16) Sections 2 and 22, application to certain canal in the Cochin Municipality and Rules—Financial Notifications, Fort St. George Gazette, dated 1st February 1882, and 23rd March 1882. (17) Rules for the regulation of the Canal Traffic at Ellore, Bezwada and head of Eastern Delta Canals—Public Works Department Notification, Fort St. George Gazette, dated 18th April 1882. (18) Section 31, Delegation of powers conferred on the Governor in Council by certain sections to Collectors of Districts to which this Act is extended—Revenue Notification, Fort St. George Gazette, 25th July 1871. (19) Extension of Act and Rules to ferry at Kuttalkadavoo, Ponnany talook, Malabar—Fort St. George Gazette, 25th January 1881. (20) Extension of Act to ferry between Penoomoody in the Repally talook to Avanigadda in the Bunder talook, Kistna district —Fort St. George Gazette, 19th July 1881. (21) Chennar and Sidhout ferries, Cuddapah—Revised Scale of fees for conveyance of goods across the—Fort St. George Gazette, 7th December 1881. (22) Salempalem ferry—Act extended to the—Fort St. George Gazette, 14th December 1881. (23) Addition to exemptions in the Kistna rules—Fort St. George Gazette, 8th August 1882. (24) South Arcot—Act extended to—Fort St. George Gazette, 12th September 1882. (25) Tinnevelly—Extension of Act to certain ferries in—Fort St. George Gazette, 19th December 1882. (26) Kistna—Extension of Act to certain ferries in—District.

LOANS AND ADVANCES.

680. DESCRIPTION.—Corporate bodies having a control of public funds are empowered under India Act XI of 1879, the Local Authorities Loans Act, to obtain money on loan from the local Governments, or with the consent of Government from private parties, on the security of those funds. They cannot raise money on loan otherwise, unless indeed they have a special enactment enabling them to do this as in the case of the Madras Municipality. The objects for which such loans may be raised are the construction and repair of works of public utility, or the repayment of debts contracted before the passing of the Act for the same purposes. It has been ruled that the works must be of a reproductive character, in all cases except where the borrowers are municipal bodies; in this case a greater latitude is allowed, mostly on account of the greater urgency of sanitary reforms in towns, which nevertheless are very seldom remunerative. Loans bear interest at the rate agreed upon, and are repayable ordinarily by half-yearly instalments within twenty years. If any of the loan conditions are infringed, the funds of the corporation are liable to attachment by Government. The loans are given at the discretion of the local Government, not exceeding Rupees 5,000 in each case. Under section 5 of the Act Government of India Notification, dated 17th August 1883, published in the Fort St. George Gazette of the 4th September 1883, gives rules having the force of law. Two lakhs of rupees are annually entered in the budget estimate of this Presidency to meet advances for agricultural improvements under India Act XIX of 1883, the Land Improvement Loans Act. This sum is distributed between the districts by the Board of Revenue, and from the sums so allotted Collectors make advances to the ryots under rules now under preparation. These advances bear interest at the yearly rate of one anna per rupee. Advances are sanctioned not under legal enactment for the relief of persons suffering from some temporary calamity as the destruction of houses or crops or seed grain or agricultural stock by some calamity of season or by fire or flood, or for some miscellaneous object. The advances cannot exceed Rupees 2,500 in any single case or Rupees 25,000 in all during the year. These advances are ordinarily repayable in not more than 20 equal half-yearly instalments including interest at $6\frac{1}{4}$ per cent. per annum. Loans are again in special cases given by the Government of India to zemindarry estates, &c., on terms specified when each loan is sanctioned. The statement at foot gives a list of persons and corporations to whom loans have been granted by the Government in this Presidency, with particulars.[1]

[1] LOANS GRANTED BY GOVERNMENT IN THIS PRESIDENCY AND STILL RUNNING.

Persons and corporations to whom loans have been granted.	Under what Act, &c.	On what account.	Amount of loan sanctioned.	Rate of interest.
			RS.	RS.
Madras Municipality..	Madras Act No. IX of 1867 ..	For water-supply project, 1869, 1873.	14,30,000	4
Negapatam do. ..	India Act No. XXIV of 1871..	For the construction of a market, 1874.	25,000	$4\frac{1}{2}$
Ootacamund do. ..	Do. do. ..	For the completion of certain roads and water-supply channels, 1875.	12,420	$4\frac{1}{2}$
Mangalore do. ..	Do. do. ..	For improvement to market, 1875-76.	9,150	$4\frac{1}{2}$
Coimbatore do. ..	Do. do. ..	For erecting tiled houses	2,000	5
Coonoor do. ..	Do. do. ..	For erecting market-sheds, 1875 ..	7,248	$4\frac{1}{2}$
Sydapett Local Fund Board.	Do. do. ..	For construction of an iron girder bridge across the Corteliaur, 1873, 1876.	1,99,790	$4\frac{1}{2}$
Calicut do. ..	Do. do. ..	For completion of the Tambracherry ghaut road and approach in Wynaud, 1874.	89,000	$4\frac{1}{2}$
Tellicherry do. ..	Do. do. ..	For completion of the Peria ghaut road and construction of a fair weather road in Wynaud, 1875.	60,000	$4\frac{1}{2}$
Ramnaud Zemindarry ..	India Government Order ..	For liquidation of debt, 1873 ..	12,72,830	5
Bunganapully Nawab ..	Do. do. ..	For liquidation of debts and repairs and improvements, 1873, 1877.	3,00,000	6
Jagheerdar of Sundoor..	Madras Government Order ..	For roads, 1873	2,500	4
Sivagunga Zemindarry.	India Act No. XXVI of 1871 ..	For repairs to irrigation works ..	1,50,000	$6\frac{1}{4}$
Talavancottah do. ..	India Government Order ..	For liquidation of debts and repairs to irrigation works, 1880-81.	55,000	$4\frac{1}{2}$

PAPER CURRENCY DEPARTMENT.

681. PAPER CURRENCY.—The public advantages of a paper currency, in substituting a cheap and convenient instrument of circulation in place of an unwieldy and costly silver coinage require no exposition. The manner in which the Government make the undertaking profitable will be deduced from the history of Governmental operations shown in the foot-note.[1] The present Currency Act

Persons and corporations to whom loans have been granted.	Under what Act, &c.	On what account.	Amount of loan sanctioned.	Rate of interest.
			RS.	RS.
Chintalaputty Vantoo ..	India Government Order ..	For the restoration of an old irrigation channel, 1880.	10,000	$6\frac{1}{4}$
Andiputty Poligar ..	Do. do. ..	For liquidation of debt, 1881, 1882.	62,000	5
Mysore State	Do. do. ..	Advance on account of famine ..	80,00,000	4
Panayoor Mittahdar ..	Do. do. ..	For liquidation of debts, 1882-83 ..	25,000	$4\frac{1}{2}$
Ex-zemindar of Palcondah.	Do. do. ..	Advance made in January 1884 ..	3,000	..
		Total ..	1,17,14,938	..

[1] SKETCH HISTORY OF INDIAN PAPER CURRENCY.—The three Presidency Banks established under Government control at Calcutta, Madras, and Bombay, used for many years to employ a private note circulation under the terms of their charters. Under India Act IX of 1843 the Madras Bank could so issue bank notes of not less than 10 rupees each to an aggregate of one crore of rupees. There was no law however to provide for a reserve against this note-issue, nor were the notes made legal tender; the circulation of the notes therefore extended only a short distance into the country. The total amount for the three banks never exceeded five millions sterling. (2) This was the state of things when Mr. Wilson came to India in 1860, and unfolded his measure for a Government paper currency, to be made legal tender, and the reserve to be protected by law. He was opposed to the ordinarily accepted English principle of the Bank Charter Act of 1844. That principle may be thus described. The Government employing the Bank of England as its agent coins the paper currency, for which it receives cash in exchange. As a guarantee for solvency in repaying the note on demand, the bank holds, first up to a fixed amount of 15 millions either its own promises to pay or Government securities for which it has already given cash, and secondly after that bullion of the exact amount of the further note-issue. The profit of the Government in this case consists in paying no interest on its own promises to pay, which nevertheless it permits itself to regard as convertible security. The security of this amount is in fact the credit of the Government. The fixed amount of 15 millions is supposed to be the extent of the notes which will be out in circulation at any one time, and for which therefore it is unnecessary to have a bullion equivalent. The principle with the Scotch and Irish private banks is the same; they can issue notes up to a certain amount without any deposit of gold, but after that they can issue only on a corresponding cash reserve. The German Government have recently adopted the English system of paper currency, providing however that on payment of a fine to the State of 5 per cent. the fixed limit may be transgressed without recourse to a cash reserve. (3) Mr. Wilson was opposed to that part of the English principle which gave a fixed limit to the notes not protected by cash, and would have substituted the American method of allowing this portion of the notes to vary always with the total amount of the notes. The arrangement then is to take first the cash reserve and prescribe that it must bear a certain proportion to the whole value of notes, in Mr. Wilson's proposals one-third; and to allow the whole remainder of the notes to be represented by securities. It will be seen that this is an inversion of the English method; and that while in the case of the English Act the amount of unbacked notes is the amount which is found practically safe from the point of view of trade, in the case of the American Act the amount of unbacked notes may rise to any numerical figure according to the expansion of the currency. Mr. Wilson looked to a large expansion of the Indian currency and a correspondingly large saving to the Government in the interest on their own securities. The Act would of course make the notes legal tender within certain limits. There were to be seventeen currency circles. Within each circle the notes were to be encashable at certain places. The gain to Government by saving interest is supplemented in these cases by the items of economy of coining and economy of transport, the latter being in India a very important consideration. (4) Mr. Wilson died before his scheme was completed. Mr. Laing, who succeeded him, reverted to the English system of reserves, but he adopted his predecessor's scheme of sub-dividing the empire into circles of legal tender and encashment. The amount then fixed as the sum for which securities were permissible was 4 crores of rupees, or 4 millions sterling. The coin received for all notes in excess of this limit was to be held in reserve by the Currency Commissioners. Mr. Laing further proposed to reduce the number of currency circles to three, Calcutta, Madras, and Bombay, and to develop the note circulation through the agency of the Presidency Banks. Sir Charles Wood, who was then Secretary of State for India, disallowed that part of the scheme which contemplated the employment of the banks, and required that the management of the currency should be undertaken directly by the Government. Some delay arose on this account and at the time when Sir C. Trevelyan succeeded Mr. Laing in 1862 little had been done in the matter beyond issuing Government notes at the Presidency towns, in lieu of those withdrawn by the banks. The measure finally carried out during Sir C. Trevelyan's tenure of office, viz., India Act XIX of 1861, embodied the arrangements just mentioned, but the number of circles was fixed at ten and Rupees 10 was to be the lowest value of note. This Act was repealed by India Act III of 1871, which increased the sum of 4 crores to 6 crores, and instituted 5-rupee notes. Other Acts repealed by this were I of 1866, XXX of 1867, and XV of 1870, there being different amendments of XIX of 1861. Act XX of 1882 (The Indian Paper Currency Act) in force at present repeals Act III of 1871, but the only difference between the two Acts is the establishment of an office of issue at Rangoon, in addition to those in India. (5) The average circulation of notes has risen from about $4\frac{1}{2}$ millions in 1862-63 to about 15 millions in 1882-83, the rise having been gradual. The expansion of the Government paper currency may be regarded as satisfactory, though of late years the rate of growth has been slight. The increase is chiefly at the various trade centres, but there is also some circulation, amounting to about $2\frac{1}{2}$ millions sterling in the interior of the country. The fluctuations in the circulation have been for the most part inconsiderable, and there never has been any contraction or fall indicating public distrust. The reasons why the Indian paper currency has so far had a comparatively limited circulation appear to be of two kinds: first, the denominations of note employed are not suited to the circumstances of the people; secondly the note is practically inconvertible throughout the greater part of the country. As to the first point, the introduction of notes of as small a denomination as one rupee appears to be required; and the retail trade of India is carried on in such a minute detail as regards individual transactions, that even this would be too large effectually to answer the purpose. The reasons for the practical inconvertibility of the notes are the extent of the circles of issue and the absence of means for cashing notes. The natural remedy for this would be to make the notes payable on presentation at every district treasury throughout the country. This would necessitate an increased transmission of specie into the interior, but it is supposed by some that the cost would be recovered in the profits of the paper currency. The ultimate aim here doubtless is the abolition of currency circles and the establishment of a universal note for all India.

(India Act XX of 1882) divides the whole country into circles of issue, and appoints some one city or town in each as the place of issue of notes. It provides that a currency note shall be a legal tender within the circle of issue in payment of any revenue or other claim, to the amount of five rupees and upwards due to the Government of India, and in payment of any sum of five rupees and upwards due by the Government of India or by any body corporate or person in British India, "provided that no such note shall be deemed to be a legal tender by the Government of India at any office of issue." It further provides that all notes shall be legally payable on demand at the office of issue of the circle and at the Presidency town of the Presidency within which the town or city of issue is situated; that the whole of the bullion and coin received for notes issued shall be retained and secured as a reserve to pay such notes, with the exception of such an amount not exceeding sixty millions of rupees as the Governor-General in Council, with the consent of the Secretary of State for India, shall from time to time fix: the amount so fixed being invested in Government securities; and that the coin bullion and securities shall be appropriated and set apart to provide for the satisfaction and discharge of notes in circulation. Suitable measures are taken in the Act for providing for a careful audit of the currency accounts and for the preparation monthly, for publication in the Gazettes of Calcutta, Madras and Bombay, of an abstract of the accounts of the department, showing the whole amount of notes in circulation, the amount of coin and bullion reserved, and the amount of the Government securities held by the department. The details of the law are shown under the head of "Paper Currency" in Vol. II, App. LIV.

682. The issue of currency notes is entrusted to a special department styled the department of Paper Currency, presided over by a Head Commissioner of Paper Currency with a Commissioner, or Deputy Commissioner of Paper Currency for each circle of issue, the appointment and removal of these officers being vested by law in the Government of India. The Madras Presidency is divided into two circles of issue, the Madras circle and the Calicut circle, both under the control of the Commissioner of Paper Currency, Madras, assisted by a Deputy Commissioner for the Calicut circle. The post of Commissioner of Paper Currency, Madras, is held by the Accountant-General, the post of Commissioner or Deputy Commissioner being as a rule held by the Chief Civil Account Officer of the circle. The Calicut circle of issue includes the districts of Malabar, South Canara, Coimbatore, the Neilgherries, and Coorg, having Calicut as the office of issue. The Madras circle includes all the other districts, with the town of Madras as head-quarters for the issue of notes for the circle. There were formerly a Trichinopoly and a Cocanada circle, the former embracing the districts of Tanjore, Trichinopoly, Madura, and Tinnevelly, with head-quarters at Trichinopoly, and the latter, the districts of Ganjam, Vizagapatam, Godavery and Kistna, with head-quarters at Cocanada. The Trichinopoly circle was abolished on the 31st October 1872, owing to the Bank of Madras having withdrawn its branch from that station, and the Cocanada circle was abolished on the 16th August 1881, the circulation having been found to be confined almost entirely to the Madras Bank, and there being hardly any public demand for the notes. In addition to the two head-quarters of issue, currency agencies are established at Vizagapatam and at Cocanada to afford facilities to the public for exchanging coin for notes, or notes for coin. At the head-quarters of each circle of issue, notes of the circle are issued for coin or other notes of the circle, and coin for notes of other circles (styled foreign circle notes). Foreign circle notes are not encashable by law, but the practice is to cash them whenever the reserve of silver coin admits of it, that is to say, whenever the reserve is in excess of the circulation of the circle after deducting the minimum circulation. Madras being the Presidency town, the issues of the Calicut circle and of the agencies within the Presidency are also encashable there by law. Though legally encashable on demand only at the office of issue, notes of the Madras circle are as a rule cashed on demand at most of the treasuries and sub-treasuries in the Presidency. The revenue of the Presidency being remitted almost entirely to Madras, the city of issue, the encashment at the treasuries is as a rule a mutual convenience to the Government and to the public. It is further the practice of Government to receive notes of any issue in payment of its dues, and to require

the railway companies similarly to receive notes of any issue in payment of railway fares and of freight.

683. The subjoined statement [2] shows the average circulation of currency notes in the Madras Presidency and throughout India from the year 1862, the date of the establishment of the Government Paper Currency Department, to the end of 1882-83. The circulation of the banks in 1861 amounted to about three-and-a-half crores of rupees. The circulation of notes in the Madras and Calicut circles, excluding those held in the branch reserve treasury, was 127 lakhs at the end of 1883-84. The coin reserve held in the Presidency at the end of 1883-84 was 108 lakhs. The receipts and issues of home notes during that year amounted to 1,642 lakhs, and the encashment of foreign notes to 86 lakhs. The profit to Government on the currency operations of the year was Rupees 2,03,261.

684. GOVERNMENT SECURITIES.—The operation of the ordinary Government of India securities is familiar, and need not here be described. In the foot-note [3] are given brief particulars as to each of the loans now running. A new kind of

[2] STATEMENT SHOWING THE AVERAGE CIRCULATION OF CURRENCY NOTES IN THE MADRAS PRESIDENCY AND THROUGHOUT INDIA FROM THE YEAR 1862-63 TO 1882-83.

Year.	Madras.	Calicut.	Trichinopoly.	Vizagapatam or Cocanada.	Total of the Madras Presidency.	Total throughout India.
	RS.	RS.	RS.	RS.	RS.	RS.
1862-63	41,35,714	...	...	...	41,35,714	4,41,94,285
1863-64	66,50,000	...	...	...	66,50,000	5,23,25,000
1864-65	60,41,667	61,755	84,843	55,521	62,43,786	6,88,20,116
1865-66	56,58,333	4,21,160	2,72,859	3,75,811	67,28,163	7,72,57,983
1866-67	60,51,654	5,54,549	3,89,055	3,57,041	73,52,299	8,98,93,179
1867-68	54,79,493	5,56,109	4,38,742	3,01,163	67,75,507	9,28,50,848
1868-69	62,21,436	8,16,466	4,26,527	4,73,843	79,38,272	10,14,55,327
1869-70	64,56,004	7,70,240	5,43,457	3,46,556	81,16,257	10,66,90,777
1870-71	80,93,566	8,63,419	3,21,477	3,41,278	96,19,740	9,81,32,240
1871-72	1,03,36,299	11,96,533	3,89,964	3,36,779	1,22,59,575	11,41,57,442
1872-73	99,46,533	18,10,467	2,93,207	4,63,376	1,25,13,583	12,86,40,367
1873-74	1,14,85,587	22,08,618	...*	7,28,755	1,44,22,960	11,14,51,907
1874-75	86,67,423	21,48,859	...	13,24,753	1,21,41,035	10,67,01,071
1875-76	1,03,00,667	25,38,768	...	25,82,664	1,54,22,099	11,35,26,621
1876-77	1,15,28,764	20,86,198	...	21,31,235	1,57,46,197	11,64,16,538
1877-78	1,51,40,138	21,89,267	...	16,14,344	1,89,43,749	13,25,02,472
1878-79	1,27,31,634	17,66,917	...	25,14,351	1,70,12,902	13,19,05,084
1879-80	1,19,00,973	18,00,536	...	10,91,665	1,47,93,174	12,79,83,033
1880-81	1,23,49,075	14,78,377	...	11,77,505	1,50,04,957	13,66,29,354
1881-82	1,26,82,009	15,35,584	...	7,95,330	1,50,12,923	13,50,46,242
1882-83	1,34,72,861	13,69,536	...	...†	1,48,42,397	15,18,07,113

* Abolished on the 31st October 1872. † Abolished on the 16th August 1881.

[3] LIST OF PUBLIC LOANS ISSUED BY THE GOVERNMENT OF INDIA AND NOW RUNNING.—*Three-and-a-half per cent. loan of* 1853-54.—Opened 28th October 1853 and closed 30th August 1856—interest payable on 28th February and 31st August. *Four per cent. loan of* 1824-25.—Advertized for discharge on 27th March 1882, vide Financial Notification, No. 2122, dated 24th December 1881. *Four per cent. loan of* 1828-29.—Advertized for discharge on 27th March 1882, vide Financial Notification, No. 2122, dated 24th December 1881. *Four per cent. loan of* 1832-33.—Opened 7th June 1831 and closed 16th September 1835—interest payable half-yearly on 1st May and 1st November as in the above loans. Notes of this loan have partly been transferred to the four per cent. loan of 1st May 1865. *Four per cent. loan of* 1835-36.—Opened 16th September 1835 and closed 15th May 1841—interest payable half-yearly on 31st March and 30th September as in the above loans. *Four per cent. loan of* 1842-43.—Opened 4th January 1843 and is comprised of cash subscriptions and transfers from the five per cent. loans of 1825-26 and 1829-30—interest payable on 1st February and 1st August. The other conditions of this loan are the same as those of the four per cent. loan of 1835-36. This loan is open for the consolidation of notes of the several four per cent. loans to notes of a corresponding amount in it. *Four per cent. loan of* 1854-55.—Opened 28th October 1853, and is comprised of transfers from the five per cent. loan dated 30th June 1841—interest payable on 30th June and 31st December. *Four per cent. book debt loan of 22nd April* 1854.—Opened 22nd January 1853 and is comprised of transfers from the five per cent. transfer loan. *Four per cent. transfer loan of* 1st *May* 1865.—Opened 19th November 1864—interest payable on 1st May and 1st November. This loan is open for the consolidation of notes of the several four per cent. loans into notes of a corresponding amount in it. *Reduced four per cent. loan of* 16*th January* 1879.—Comprises transfers from the four-and-a-half per cent. transfer loan of 1872 under the provisions of clause 6, para. 3 of Financial Notification, dated 16th September 1871, No. 3206—interest payable half-yearly on 16th January and 16th July. *Four-and-a-half per cent. loan of* 15*th July* 1870.—Opened under Financial Notification, dated 31st December 1869, No. 3452, and is comprised of transfers from the five per cent. P.W. loan of 12th March 1855, and four-and-a-half per cent. loan of 28th February 1857—interest payable half-yearly on the 15th January and 15th July. Guaranteed not to be paid off before the 15th of July 1885. *Four-and-a-half per cent. loan of* 4*th July* 1871.—Advertized for discharge on 13th February 1882, vide Financial Notification, No. 4034, dated 3rd November 1881. *Four-and-a-half per cent. loan of* 15*th September* 1878.—Opened under Financial Notification, dated 27th July 1878—interest payable half-yearly on 15th March and 15th September. No part of this loan will be discharged before 15th September 1893. *Transfer loan of* 1879.—Comprises transfers from the five-and-a-half per cent. loan of 31st May 1859, and cash subscriptions under Financial Notifications, dated 12th August 1878, 13th March 1879, and 14th May 1880. Notes in lieu of transfers from the five-and-a-half per cent. Loans were issued in two alternative forms, one portion entitled, "The Transfer Loan, 1879. Four-and-a-half per cent. portion;" and the other "The transfer loan of 1879. Seven shillings sterling per cent. portion." Interest payable half-yearly on 15th March and 15th September. No part of this loan will be paid off before 15th September 1893.

security termed "Stock notes" was issued by the Government of India in 1882, the object being to afford to the masses of the people in the mofussil greater facilities for the investment of their petty savings at interest and to encourage accumulation. The notes which are of four denominations, viz., Rupees 12½, Rupees 25, Rupees 50, and Rupees 100, are issued at par, and bear interest at four per cent. per annum. Coupons are attached to them for payment of interest, notes of the three lower denominations having each 3, and the 100-rupee note 9 coupons. The amount of interest accruing monthly is for the convenience and security of the public stated on the face of the note and of each coupon. Unlike ordinary Government securities stock notes are transferable from hand to hand without endorsement or any other formality whatever. They may be deposited at the Government treasury where land revenue is payable, and the interest thereon will be credited, as it falls due, to the account of the depositor. Interest on coupons if presented undetached from the notes to which they belong, will also be credited when it has become due, in payment of land revenue or State demands of all kinds, and the notes are also received as security deposits for Government servants, &c. They are obtainable on demand at all district and talook treasuries, and also from post offices, but are not sold at the Presidency towns. Notes of any of the three lower denominations may be exchanged at any treasury for their equivalent in notes of the higher denominations. Stock notes appertain to certain circles of issue and interest is payable annually on presentation of the note on or after 1st February at any of the treasuries situated within the circle to which the note belongs. The transfer of payment of interest from one circle to another is not ordinarily allowed. Interest payable on stock notes is free from taxation of every description, and no stock note will be discharged within twenty years from the date of issue thereof, or without six months' previous notice of intention to discharge. The Madras circle for stock notes comprises the Madras Presidency and Coorg. The sales of stock notes up to the end of 1882-83 amounted for the whole of India to Rupees 16,92,000, and for the Madras Presidency to Rupees 1,84,000.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

CENSUS.

685. INTRODUCTION.—There will be no further census in this Presidency until the year 1891, and the method of work generally obtaining on such occasions can be inferred from the account of the proceedings in 1881 shown in the sketch history at foot.[1] The different operations involved in an enumeration were legalized by India Act XIV of 1880. The Commissioners of the Madras Municipality have power to make censuses under Government sanction according to the provisions of their Act. The Indian Arms Act (India No. XI of 1878) authorizes a census of fire-arms to be taken by the local Government on occasion. The census statistics now on record for this Presidency are shown in the following paragraphs. They will form the basis of administration until the year 1891. The same figures are shown in general and tabular form arranged by districts in Vol. II, App. XVI, and a conspectus of census figures for the whole of India will be found in Vol. II, App. XVII. The revenue and population in some of the principal countries of the world, including India, is shown in Vol. II, App. LVI.

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[1] SKETCH HISTORY OF CENSUSES IN THE PRESIDENCY—*Early Censuses.*—The first census of the Madras Presidency was taken in 1822, when the population was returned at 13,476,923. The next enumeration, within the same territorial limits, was in the year 1836-37, when the numbers were returned at 13,967,395, or an increase of only 490,472 in fourteen years, a result doubtless chiefly due to defective census returns, but also attributable in some measure to the epidemic cholera prevailing from 1818 to 1826 or 1827, and to the latter epidemic, preceded by famine, which raged in 1833 and 1834. The first of the quinquennial enumerations was taken in 1851-52, when the population was found to have risen to 22,031,697, of which 273,190 belonged to the district of Kurnool, which had been annexed after the previous census was taken. An increase of 58 per cent. in fifteen years shows that one or other of the censuses was inaccurate, and it is now believed that many of the zemindarries were omitted or their population much understated in the returns for 1836-37. The results of the four quinquennial enumerations are as follows:—1851-52—population 22,031,697; 1856-57—population 22,857,855; 1861-62—population 24,656,509; and 1866-67—population 26,539,052. The figures for 1861-62 and 1866-67 are exclusive of North Canara, which was transferred to Bombay in 1862, with a population at that time of about 300,000. The first regular census was taken in 1871. The preliminary work for this commenced in January 1871, and the final enumeration took place on the night of the 14th November 1871, giving a population of 31,597,872. (2) *The census* of 1881.—The last census of the Madras Presidency was taken on the night of the 17th and on the morning of the 18th February 1881. In that census inquiry was made into certain subjects untouched, or but lightly touched, in the census of 1871. These were the "civil" or conjugal condition of the people, their languages, their birth-places, their occupations, and the sub-divisions of their castes. Of these the first three were wholly new; the other two were taken up more minutely than on the former occasion. Exceeding all other points in interest in the 1881 census was the prominence which the figures in the census tables gave to the effects of the famine of 1876-78. (3) *Procedure of the* 1881 *Census.*—The procedure adopted at the latest Madras census was as follows:—During the year previous each talook was divided into census circles. There were 3,973 such circles containing sometimes as few as 6, and sometimes as many as 24 villages. The 3,973 circles were divided into 73,059 blocks, each block containing an average of 243 houses. For a collection of circles a superintendent was appointed, for each circle a supervisor, and for each block an enumerator. Five registers were then prepared. Their object was to identify the resident population roughly in advance, and to furnish data as to the providing of due machinery for the enumeration. The statistics thus obtained were also valuable in themselves. A preliminary census extending over fifteen days was then held two and a half months prior to the final synchronous enumeration, with a view to providing rough drafts of the final house-to-house returns. In this country entries are seldom made by the inhabitants themselves, and if a rough draft was not prepared in advance, the work could not be executed in a single day and night. It is found by experience that the resident population shift little between the preliminary enumeration and the final census, and much correction at the latter date is not necessary. The preliminary enumeration may in fact be regarded as a register of ordinary house-occupyings. The interval between this and the final census was necessary for check, but on future occasions it can be much diminished. The final census embraced both the resident and the floating population, and was a return for the night of the 17th February 1881. In certain special localities the census was omitted, and reliance was placed on the preliminary enumeration. In counting the floating population an attempt was made to prevent double counting by serving a ticket on each person who had been counted, with instructions to produce it if addressed again. The floating population comprise the homeless poor and travellers by road, railway travellers, the canal population, the boat population on the west coast backwaters, the sea-going population within Indian waters, and soldiers on the march. Special arrangements were made for each of these classes. The census was taken mainly by the Revenue department, but other departments gave assistance. The schedules or house-to-house returns were finally sent in to the central office at Madras, and there abstracted, posted, and tabulated. The arrangements for checking and testing developed during the last two censuses, especially at that of 1881 have been very elaborate. Finally a report was written, and various tables and results sent up to the Government of India for the production of an Imperial publication.

686. POPULATION GENERALLY.—The number of towns in the Presidency returned as such according to the latest census is 227. The table at foot [2] gives the population of the ten chief towns, excluding Madras City. The total number of towns and villages combined is 52,648. This relates exclusively to inhabited towns and villages, and is therefore not identical with the number of villages returned in the revenue accounts. In the latter the term village is often applied to what is merely a revenue unit of area. The table below shows the number of inhabited villages returned in the census.[3] Excluding the talooks of Bhadrachellam and Rekapully in the Godavery district, the total number of houses returned is 6,422,079, of which 717,521, or 11·17 per cent., are unoccupied. The total population of the Presidency (including the Native State of Poodoocottah) is returned at 31,170,631, of whom 15,421,043 are males, and 15,749,588 are females, the latter being to the former in the proportion of 505 to 495. 3,027,058, or 10 per cent., is the town population; 28,143,573, or 90 per cent., is the rural population. The proportion of so-called urban population is highest in Tinnevelly (20·1 per cent.), where many large agricultural villages have been returned as towns. The proportion is lowest in South Canara (4·1 per cent.) and in Kurnool (5·1). The total area is 141,001 square miles, and the total population, as just mentioned, 31,170,631. This gives on the whole area 221 persons to the square mile. In 1871 the density was found to be 226·2 per square mile. The proportions for other provinces of India are shown below. The average density in the principal European countries is also given below.[4] Madras therefore, standing third of the Indian provinces, has a greater density than any European country except Belgium, England and Wales, Holland and Italy. In the talooks of Combaconam, Mayavaram, Negapatam, Nunnilam and Shiyally in Tanjore district, on an area of 1,323 square miles there is a population of 1,160,827, or 877 per square mile. This is in the centre of the Cauvery irrigation delta, and is the richest (as well as the most populous) tract in the Presidency. In Vizagapatam the talooks of Palcondah, Parvatipore, Sautore and Srungavarapoocote contain on an area of 422 square miles a population of 518,722, or 1,229 per square mile. The talook of Ponnany in Malabar has an area of 390 square miles, a density of 1,007 persons to the square mile. A map showing by diagram the relative density of the population in the different revenue districts [5] is excluded here by necessities of publication, but will be found in the collection of maps given with Vol. III. Omitting Madras City, the Agency Tracts, and the Native States, there are 709 persons per square mile of cultivated land and 388 per square mile of culturable (that is to say cultivated and not yet cultivated). In Tanjore the figures are 1,085 and 770. There was in Madras in 1881 an area of

[2] POPULATION OF THE TEN CHIEF PROVINCIAL TOWNS.

Trichinopoly	84,449	Bellary	53,460
Madura	73,807	Salem	50,667
Calicut	57,085	Combaconam	50,098
Tanjore	54,745	Cuddalore	43,545
Negapatam	53,855	Coimbatore	38,967

[3] NUMBER OF VILLAGES IN EACH DISTRICT.

Arcot, North	3,967	Nellore	1,688
Arcot, South	2,850	Salem	3,972
Bellary (including Anantapore)	2,084	Tanjore	3,551
Canara, South	1,282	Tinnevelly	1,497
Chingleput	2,003	Trichinopoly	1,485
Coimbatore	1,447	Vizagapatam	8,762
Cuddapah	1,241		
Ganjam	6,895	Total	52,040
Godavery	2,249		
Kistna	1,823	Poodoocottah territory	597
Kurnool	836		
Madura	3,971	Total, exclusive of Neilgherries and Madras City and including Poodoocottah territory	52,637
Malabar	437		

[4] NUMBER OF INHABITANTS TO THE SQUARE MILE IN OTHER INDIAN PROVINCES AND IN EUROPEAN COUNTRIES.

North-west Provinces and Oudh	416·	England and Wales (1881)	445
Bengal	371·41	Ireland (1881)	169
Madras	221·	Scotland (1881)	121
Punjaub	158·	Belgium (1879)	486
Berar	150·9	France (1876)	183
Bombay	132·8	Russia in Europe (1870 to 1873)	34
Coorg	112·63	Greece (1879)	84
Assam	105·34	Germany (1880)	213
Central Provinces	101·9	Netherlands	320
Burmah	42·84	Italy	248

2·9 acres to each person; against 1·64 acres in England in 1871. There were again nine-tenths of an acre actually cultivated for each person living; besides seven-tenths of an acre for each person which were capable of cultivation, but were not at that time cultivated. That is to say, there were 22,000,000 acres (or 0·7 per head) which either had not yet been brought under the plough or had been left fallow. For the whole Presidency the average number of inhabitants to an occupied house is 5·5; in towns 5·8, in villages 5·4. In 1871 the general average per house was shown as 5·01, but this was calculated on all houses; the true proportion per inhabited house was 5·33. The increase per house in 1881 is probably only apparent. It may be fully accounted for by the fuller returns of females. The averages per house in other Indian provinces and in the United Kingdom are given below.[6] The so-called floating population, i.e., those who did not sleep in any house on the night of the census, amounted to nearly 2 per cent. of the whole population.

687. Religion, Sect and Caste.—The table at foot gives the classification and the numbers of the Madras Presidency population under each creed.[7] There are only three religions with any considerable number of followers in the Presidency, viz., Hindoos, Mahomedans, and Christians; the proportion per 1,000 of the population being 914 Hindoos, 62 Mahomedans, 23 Christians, and 1 "others." Mahomedans and Christians are proportionally much more numerous in towns than are Hindoos. Among Christians the excess of women is higher than among the followers of any other religion. The statement at foot shows the distribution of Hindoo sects.[8] The Hindoo population is returned under 257 sub-heads of caste, which are grouped under 18 major heads in the table at foot.[9] There were in all 19,044 different castes named. It must be remembered that only a very limited number of these caste names are employed as third-names in the personal appellations of Hindoos; for which see Vol. II, App. XXXIV. Excluding Bhadrachellam and Rekapully in the Godavery district, there are 1,932,910 Mahomedans in the Presidency. They may be held to comprise distributed the religious sects mentioned

[5] Number of Inhabitants to the Square Mile in each District and in the Native and Foreign States.

Anantapore	117	Ganjam	211	Pondicherry	1,243
Arcot, North	251	Godavery	244	Poodoocottah	274
Arcot, South	372	Kistna	183	Salem	209
Bellary	125	Kurnool	91	Tanjore	583
Canara, South	246	Madras	15,031	Tinnevelly	316
Caricaul	1,789	Madura	258	Travancore	356
Chingleput	345	Mahé	3,761	Trichinopoly	341
Cochin	441	Malabar	410	Vizagapatam	143
Coimbatore	211	Neilgherries	95	Yanam	910
Cuddapah	128	Nellore	140		

[6] Number of Persons per House in other Indian Provinces and in the United Kingdom.

Coorg	7·97	Assam	5·57
Punjaub	6·73	British Burmah	5·5
North-West Provinces and Oudh	6·4	Madras	5·5
Bengal	6·3	Central Provinces	4·26
Bombay	5·82	England and Wales (1881)	5·3
Berar	5·74		

[7] Distribution according to Religion.

Religion.	Population.			Religion.	Population.		
	Males.	Females.	Both sexes.		Males.	Females.	Both sexes.
Hindoos ..	14,104,942	14,392,724	28,497,666	Theists	8	5	13
Mahomedans ..	952,396	981,175	1,933,571	Codagoos (Coorg).	2	..	2
Christians ..	349,078	361,994	711,072	Agnostics ..	1	..	1
Jains ..	12,750	12,212	24,962	Others	55	14	69
Booddhists ..	875	671	1,546	None	5	..	5
Parsees ..	87	56	143	Not stated ..	761	658	1,419
Brahmos ..	66	66	132				
Jews	17	13	30	Total ..	15,421,043	15,749,588	31,170,631

[8] Hindoo Sects and their mutual Proportion.

Shiveites	15,399,686 or	54·04	per cent.
Veishnavas	10,494,408 or	36·83	do.
Lingayets	64,580 or	0·23	do.
Others and not stated	2,538,992 or	8·90	do.
Total ..	28,497,666 or	100	do.

below.[10] Malabar contains more than the average proportion of Shiahs. The largest number of Wahaubies in any district is 134 in North Arcot, and the sect has lost 74·2 per cent. since 1871. More than half the Farasies are in Nellore. There are three race divisions of Mussalmans in this Presidency; first the northern or immigrant Mussalmans; secondly the Moplah; and thirdly the Lubbay. The first are Moghuls, Pathauns, Arabs, Sheikhs and Syeds, who are the descendants of the northern invaders. These are most numerous in the northern districts, in Kurnool, Cuddapah, and Bellary, and in Kistna. The Moplahs and Lubbays are for the most part of pure Dravidian descent. The Moplahs are almost exclusively found in Malabar and South Canara. The Lubbays are chiefly found in Tanjore and Madura. The numbers according to this division are roughly:—Northern Mahomedans including Syeds, Sheikhs, Moghuls, Pathauns and Arabs, 695,235; Lubbays, 515,440; Moplahs, 722,896; total 1,933,571. The first of the foregoing classes might be divided in the following estimated proportions:—Sheikh, 55·63; Syed, 23·67; Pathaun, 15·55; Arab, 3·80; Moghul, 1·25; total 100. A very large proportion of the Mussalmans in nearly every district is found in the towns. The return of Christians of all denominations is 710,802. Of the total (711,072), 473,353 are Roman Catholics, and distributing the "not stated" total proportionately, the Roman Catholics represent 68·68 per cent. of the total population. The following are the most conspicuous groups of the Christians, with their numbers roughly estimated:—Europeans and Eurasians, 32,000; Goa Roman Catholics of the west coast, 100,000; Mission Roman Catholics of the south, 300,000; Anglican converts of the south, 100,000; Lutheran converts of the west coast, 8,000; Baptists of Nellore and Kistna, 30,000. The proportion of Christians in the population is very striking when compared with other provinces as the figures in the statement at foot show.[11] Both in actual numbers and in proportion to the general population

[9] HINDOO MAIN HEADS OF CASTE.

Group head of caste.	Population.	Group head of caste.	Population.
Vellaular (Cultivators)	7,767,463	Shatauny (Mixed castes)	625,455
Pariahs (Labourers)	4,439,253	Vannaur (Washermen)	528,535
Vanniar (Labourers)	3,751,093	Ambattar (Barbers)	348,390
Shaunar (Toddy-drawers)	1,621,111	Koosavar (Potters)	263,975
Yidayar (Shepherds)	1,580,000	Cshatriyas (Warriors)	193,550
Brahmins (Priests)	1,122,070	Kanakar (Writers)	102,472
Keikalar (Weavers)	979,062	Classed as 'Others'	2,780,301
Shembadavar (Fishermen)	873,448	Not stated	31,540
Cummaular (Artizans)	849,901		
Chetties (Traders)	640,047	Total ..	28,497,666

[10] MAHOMEDAN SECTS AND THEIR MUTUAL PROPORTION.

Sect.	Mahomedan population.			Percentage.		
	Males.	Females.	Total.	Males.	Females.	Total.
Soonnee	862,892	695,484	1,758,376	90·60	91·27	90·94
Shiah	22,186	22,192	44,378	2·33	2·26	2·29
Wahauby	491	529	1,020	0·05	0·05	0·05
Farasy	38	44	82	0·01	0·01	0·01
Others and not stated	66,789	62,926	129,715	7·01	6·41	6·71
Total ..	952,396	981,175	1,933,571	100	100	100

[11] NUMBER OF CHRISTIANS IN THE DIFFERENT PROVINCES COMPARED.

Province.	Number of Christians.	Ratio per 10,000 to total population.	Province.	Number of Christians.	Ratio per 10,000 to total population.
Madras	711,072	228	Assam	7,093	15
British Burmah	84,219	225	Nizam's Dominions	13,614	14
Coorg	3,152	176·78	North-West Provinces and Oudh	47,664	11
Bombay	145,154	62	Central Provinces	11,973	10·37
Bengal	128,135	18	Berar	1,335	5
Punjaub	33,699	15			

Madras stands in this respect at the head of the list of provinces; and if the southernmost part of the Presidency be taken, it is found that in a compact tract containing 7,213,843 souls, 365,544, or 5,067 per 100,000 are Christians. The Church of England in the south and the Baptists in Nellore and Kistna have made great advances of late years. But the Roman Missions, founded three and-a-half centuries ago, have still the largest hold on the country, and their activity is as continuous as it is widespread. Roman Catholics represent $25\frac{1}{4}$ per cent. of the Europeans, $37\frac{2}{3}$ per cent. of the Eurasians, and (including the "not stated" distributed) 68·68 per cent. of the total Christian population. There are 24,962 Jains. These are found chiefly in the districts of South Canara and the two Arcots. Of Booddhists there are only 1,546. Of these, 875 are males and 671 females, a proportion of 566 males to 434 females. The Jews occur only in Malabar. There are only 30 (17 males and 13 females). The Brahmos and Theists together make 145.

688. RELATIONS OF THE SEXES.—The proportion of the sexes varies in the different creeds and races as the table at foot illustrates.[12] The proportion of sexes as observed in the several Indian provinces and in England and Wales is given below.[13] Exclusive of the Hill tracts and distributing 46,984 "not stated," there were, in round numbers, 13,740,000 single, or about $45\frac{1}{2}$ per cent.; 12,650,000 married, or about 42 per cent.; 3,820,000 widowed, or about $12\frac{1}{2}$ per cent. The table at foot gives this in detail for males and females.[14] There are several striking facts revealed by this table. Considerably more than half of the male population is unmarried, while little more than one-third of the female population is unmarried. There are nearly six widows to every widower, and there are nearly three hundred thousand more wives than husbands. The statement below shows how these relations stand elsewhere in the Empire.[15] From this it will be seen that, omitting the small provinces of Coorg and Assam, the proportion of unmarried of both sexes is higher in Madras than anywhere else in India. The proportion of married of both sexes is much lower than anywhere in India. The proportion of widowers is below the average, that of widows is so high as to be

[12] PROPORTION OF THE SEXES.

Religion.	In the Presidency generally.		In towns.		In villages.	
	Males.	Females.	Males.	Females.	Males.	Females.
Hindoos	495	505	490	510	495	505
Mahomedans	493	507	479	521	496	504
Europeans	676	324	} 488	} 512	} 492	} 508
Eurasians	501	499				
Native Christians	488	512				

[13] PROPORTION OF THE SEXES IN INDIAN PROVINCES AND IN THE UNITED KINGDOM.

Province.	Ratio per 1,000 to total population.		Province.	Ratio per 1,000 to total population.	
	Males.	Females.		Males.	Females.
Madras	495	505	Central Provinces	505	495
North-West Provinces	519·5	480·5	Assam	513	487
Berar	516·5	483·5	Bengal	498	502
Bombay	516	484	Punjaub	542·5	457·5
British Burmah	533	467	England and Wales (1881)	486	514
Coorg	563	437	Hyderabad	508	492

[14] PROPORTIONS OF SINGLE, MARRIED, AND WIDOWED.

—	Single.		Married.		Widowed.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Numbers	8,167,888	5,572,711	6,187,841	6,466,758	572,095	3,251,463	14,927,824	15,290,932
Percentage	54·72	36·45	41·45	42·29	3·83	21·26	100	100

equalled only in Bengal, and the disproportion between widowers and widows is more marked than anywhere except in Bengal. In Madras, excluding the Agency Tracts, 101,679, or 173 in 10,000 of the men under 15 were married. In England only 11 in 10,000 of the men under 20 were married. Above the age of 15 in India the mass of the husbands may be regarded as corresponding to the mass of husbands in England as potential fathers of families. Under 15 there are 652,423 wives in Madras, or 1,132 in 10,000. In England under 20 there are only 67 in 10,000. Over 15 only 5·3 per cent. of the females are unmarried, while in England up to 20, 25·8 women are unmarried. But there are proportionately $2\frac{1}{2}$ times as many widows over 15 in Madras as there are over 20 in England, and there are practically no widows (3 in 10,000) under 20 in England. There are 81,043 Hindoo widows under the age of 20, three-fourths of whom are among the Brahmins. In every district there are more wives than husbands, but the excess is so slight as to support the belief that polygamy, although allowed to Hindoos and Mussalmans by their laws, is rejected in practice.

689. Age.—The numbers of males and females and of the total population at the different ages are given in the statement at foot.[16]

690. Occupation.—There were 459 heads of "occupations of the people" in the last census. These are grouped in eighteen orders and again more broadly under six main classes, viz.:—Professional, Domestic, Commercial, Agricultural, Industrial, and Indefinite and non-productive. The last class includes the great proportion of females and juveniles, and 46 per cent. of the total population is shown under this head as of "no occupation." Of the remainder, which represents the workers, male and female; 65·2 per cent. are agricultural, 20·1 per cent. are industrial, 8·0 per cent. are labourers, 1·4 per cent. are of the learned professions. Under the heads Government Service (Civil and Military) "Commerce" and "Domestic," there is altogether only 5·3 per cent. of the total working population; 3 per cent. of the agricultural population have returned themselves as following other occupations in addition to that of agriculture. The table below shows the

[15] Single, Married, and Widowed in other Provinces.

Province.	Single.		Married.		Widowed.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Bombay	48	32	47	50	5	18	100	100
Bengal	47	30	49	49	4	21	100	100
North-West Provinces	45	30	49	53	6	17	100	100
Central Provinces	46	34	50	51	4	15	100	100
Berar	39	26	56	58	5	16	100	100
Punjaub	52	36	42	50	6	14	100	100
Assam	54	41	43	43	3	16	100	100
Nizam's dominions	45	29	50	52	5	19	100	100
Coorg	54	40	41	41	5	19	100	100
Madras	55	37	41	42	4	21	100	100
Average ..	48	32	47	49	5	19	..	..

[16] Numbers in Decennial Age Periods.

Ages.	Males.	Females.	Both sexes.
0—	3,881,298	4,016,629	7,897,927
10—	3,144,105	3,185,169	6,329,274
20—	2,533,125	2,508,042	5,041,167
30—	2,192,749	2,141,632	4,334,381
40—	1,447,806	1,437,725	2,885,531
50—	864,383	947,425	1,811,808
60—	488,876	597,493	1,086,369
70—	171,132	214,169	385,301
80—	50,704	69,928	120,632
90—	10,467	13,038	23,505
100—	369	365	734
Total ..	14,785,014	15,131,615	29,916,629

proportion of the sexes in each of the classes and orders.[17] It will be noted that the occupations on which the females are most largely employed are at once the hardest and least skilful. Agricultural labour and indefinite unskilled labour include 2,845,387, or considerably more than two-fifths of the working women, while they include only 1,739,112, or less than one-fifth of the working men. The proportion of persons employed in each class in Madras in 1881 and in England in 1871 are shown in the table at foot.[18]

691. EDUCATION.—Of the 31 millions of total population nearly $2\frac{1}{4}$ millions are returned by the census as more or less educated or under instruction; 133 out of every 1,000 males and 8 out of every 1,000 females. For a rough division, the age from 5 to 15 represents sufficiently closely the period of scholarship. Of male children up to 15 there are returned as—under instruction, 464,046; educated, 76,211: total 540,257; add estimated omission, 23,580; grand total, 563,837; or 14 per cent. of the male children between 5 and 15. Above 15 there are shown

[17] PROPORTIONS IN THE SEVERAL CLASSES AND ORDERS.

Class.	Order.	——	Proportion in every 1,000 of each class and order. Males.	Females.
Professional	1	Persons engaged in the general or local government of the country	957	43
	2	Persons engaged in the defence of the country	948	52
	3	Do. do. learned professions, or in literature, art and science (with their immediate subordinates)	808	192
		Total ..	882	118
Domestic	4	Wives	..	1,000
	5	Persons engaged in entertaining and performing personal offices for man	538	462
		Total ..	524	476
Commercial	6	Persons who buy or sell, keep or lend money, houses, or goods of various kinds	729	271
	7	Persons engaged in the conveyance of men, animals, goods, and messages	912	88
		Total ..	805	195
Agricultural	8	Persons possessing or working the land and engaged in growing grain, fruits, grasses, animals, and other products	628	372
	9	Persons engaged about animals	614	386
		Total ..	628	372
Industrial	10	Persons engaged in art and mechanic productions	890	110
	11	Persons working and dealing in the textile fabrics and in dress..	511	489
	12	Do. do. do. in food and drinks	487	513
Indefinite and Non-Productive.	13	Do. do. do. in animal substances	795	205
	14	Do. do. do. in vegetable substances	495	505
	15	Do. do. do. in minerals	734	266
		Total ..	568	432
	16	Labourers and others (branch of labour undefined)	425	575
	17	Persons of rank or property not returned under any office or occupation	258	742
Working population ..	18	Persons of no specified occupation	358	642
		Total ..	364	636
		Grand Total ..	495	505
Working population ..	..	.. ..	610	390

[18] PROPORTION OF PERSONS EMPLOYED IN EACH CLASS.

Class.	Madras.	England.	Class.	Madras.	England.
Professional	4	7	Agricultural	67	20
Domestic	1	3	Industrial	19	49
Commercial	3	11	Labourers undefined	6	10

including the "not stated"—males under instruction, 55,777; educated, 1,459,579; total, 1,515,356; add estimated omissions, 40,991; grand total 1,556,347; or 17·22 per cent. of the males above 15. Altogether of males, of an age to be educated there are 15·73 per cent. educated. In the last ten years there has been a marked spread of education as shown below.[19] The male population has improved by about 40 per cent. as to the numbers educated or under instruction. The advance is less marked among Hindoos than among the other creeds. The proportionately high return of education among Native Christians is noticeable. The highest degree of education is found as might be expected, in Madras City, the percentage of educated males being 46·48 there as against 15·73 per cent. for the Presidency. Of the ordinary districts, Tanjore stands first with 26·26 per cent. of its male population above 5 years of age educated. The progress of female education, if not so important, is much more remarkable than the general progress. In 1871, 36,502 females, or 0·29 per cent. of the females above 5 years of age, were returned as educated. In 1881, 176,784, or 1·33 per cent. of the females above 5 years of age, were under instruction or educated. Proportionately to their total numbers, twice as many Mahomedan women and fifteen times as many Christian women are educated as among the Hindoos. The number and proportion of educated females in the different religions are noted in the table at foot.[20]

692. The European and Eurasian Element.—The total European population in 1881 (excluding Bhadrachellam and Rekapully) was 10,838, of whom 7,326 were males and 3,512 females. This gives 48 females to every 100 males. In 1871 there were 14,561 Europeans, the proportion being 46 females to every 100 males. This indicates a decrease of 25·57 per cent. on the total European population, chiefly due to military movements. The statement at foot gives the number of Europeans in each district.[21] 10·57 per cent. of the total European population are Europeans of other than British nationality. Of those born in India, 488 are

[19] Number educated in 1871 and in 1881.

—	1871.		1881.		Increase.	
	Males.	Females.	Males.	Females.	Males.	Females.
Under instruction and instructed ..	1,513,505	36,502	2,054,491	133,612	540,986	97,110

[20] Proportion of Educated Females.

—	Hindoos.	Mahomedans.	Christians.	Percentages.		
				Hindoos.	Mahomedans.	Christians.
Under instruction	33,392	5,438	14,247	0·97	2·20	15·16
Educated	54,257	7,036	19,124	0·62	1·18	8·82
Total ..	87,649	12,474	33,371	0·72	1·47	10·74

[21] Number of Europeans in each Revenue District.

Districts.	Males.	Females.	Total.	Districts.	Males.	Females.	Total.
Arcot, North	72	43	115	Tinnevelly	71	54	125
Arcot, South	69	15	84	Trichinopoly	110	67	177
Bellary (including Anantapore)	417	135	552	Vizagapatam	112	51	163
Canara, South	79	41	120				
Chingleput	1,061	622	1,683	Total ..	7,318	3,511	10,829
Coimbatore	184	90	274				
Cuddapah	22	20	42	Poodoocottah territory ..	1	..	1
Ganjam	113	13	126				
Godavery	190	56	246				
Kistna	35	17	52	Total, including Poodoocottah territory ..	7,319	3,511	10,830
Kurnool	33	19	52				
Madras City	2,004	1,201	3,205	Agency Tracts specially censused. Ganjam ..	3	..	3
Madura	101	75	176	Vizagapatam.	4	1	5
Malabar	1,362	317	1,679	Godavery ..	..	..	..
Neilgherry	1,048	529	1,577				
Nellore	23	10	33	Total for the Agency Tracts ..	7	1	8
Salem	102	78	180				
Tanjore	110	58	168	Grand Total for the Presidency.	7,326	3,512	10,838

males and 512 females, while of those born out of India 778 are males and 222 females. Europeans born in India are of two classes: first those who were sent home in childhood and have returned as adults, and secondly those who have been born and reared in the country. The latter form but a small class. The number of European families domiciled in the plains of India is not numerous. The former class is, in all respects except the accident of birth-place, practically the same as the British-born subject. The total number of British-born Europeans as returned is 5,883. Of these, 4,643 are males and 1,240 females, a ratio of 789 to 211 per thousand. They are shown under "nationality" in the table at foot.[22] The facts as to conjugal condition for this population are given below.[23] It appears that there are nearly two bachelors to every married man, and nearly two wives to every spinster; that there are more widowers than widows; that there are $7\frac{1}{2}$ bachelors to every maiden; and that the number of husbands is more than double the number of wives. This last fact represents the proportion of English married women absent in England. A statement of the ages of the British-born is given below.[24] Of Europeans other than British there are 2,587. Of these, 382 (280 males and 102 females) are French, and 146 (97 males and 49 females) are Germans. The former are chiefly found in the Godavery district, and in Madras city; the latter in Malabar, South Canara, and the Neilgherries. In the Eurasian population the following figures appear: males, 10,969; females, 10,923; total, 21,892. This gives a decrease of nearly $17\frac{1}{4}$ per cent., as against the 1871 census, which cannot altogether be accounted for in the same way as the decrease in Europeans. There is a falling off of 4,558 in numbers or 17·23 per cent., and the proportion of the sexes has been still more markedly disturbed, as, instead of 505 females to 495 males as in 1871, there are only 499 females to 501 males. The table at foot shows the occupation of the British-born males and the proportion in which they are distributed to the different classes of employment.[25] Among

[22] NATIONALITY OF BRITISH-BORN.

Birth-place.	Males.	Females.	Both sexes.
England and Wales ..	3,397	848	4,245
Ireland ..	844	282	1,126
Scotland ..	402	110	512

[23] CONJUGAL CONDITION OF BRITISH-BORN.

——	Males.	Females.	Total.
Single ..	2,969	396	3,365
Married ..	1,533	714	2,247
Widowed ..	133	125	258
Not stated ..	8	5	13
Total ..	4,643	1,240	5,883

[24] AGES OF THE BRITISH-BORN.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total.
0—10 ..	157	187	344	50—60 ..	270	54	324
10—20 ..	186	102	288	60 and upwards ..	191	68	259
20—30 ..	2,134	357	2,491	Not stated ..	8	5	13
30—40 ..	1,112	315	1,427				
40—50 ..	585	152	737	Total ..	4,643	1,240	5,883

[25] OCCUPATION OF THE BRITISH-BORN.

Class.		Number.	Proportion.
Occupied	Professional ..	3,339	71·91
	Domestic ..	8	0·17
	Commercial ..	673	14·50
	Agricultural ..	159	3·42
	Industrial ..	85	1·83
	Indefinite occupation ..	50	1·08
Unoccupied	No occupation ..	329	7·09
	Total ..	4,643	100

the British-born 92·91 per cent. of the total male population is occupied; and as 203 or 4·37 per cent. of the male population is under fifteen years of age, the result is that only $2\frac{3}{4}$ per cent. of the adult male Britons are unemployed. Of the total of 309 unoccupied in 1881, 33 were prisoners, 38 were pensioners, and 201 were under fifteen years of age.

EMIGRATION.

693. INTRODUCTION.—An emigrant in the ordinary acceptation of the term is a person who leaves the state or dominion in which he has heretofore lived, and goes for the purpose of permanent residence to some other state or dominion, especially where the latter is distant and presents different conditions of life. In this sense the English emigrate to the United States of America, and to the British colonies in America, South Africa, Australia, and New Zealand. Similarly the South Indian population have during the last century emigrated to such countries as Burmah, the Straits Settlements, Ceylon, and even further abroad to the islands off the east coast of Africa, and the West Indies. Technically the latest Indian Emigration Act excludes Burmah as being part of the Indian Empire, and the Straits Settlements and Ceylon as being quasi-Indian countries, and defines as an Indian emigrant one who goes by sea under contract to labour for hire to some country other than either of those just mentioned. The emigration under this Act is in other terms styled Colonial Emigration. The official definition will be here maintained, but inasmuch as for many purposes the movements of the population whether under contract or otherwise within the Indian Empire and to the Straits and Ceylon partake considerably of the nature of emigration, these will be first mentioned in the present article.

694. MIGRATION TO OTHER DISTRICTS.—Migration for the purpose of labouring for hire in distant districts of the same Presidency obtains in the Madras Presidency to a certain extent, though not largely. It has been ascertained that 95·6 per cent. of the Madras population continue to reside in the same revenue districts where they were born. The comparative table at foot [1] shows that the population is not so stationary in any other part of India. The last column of the next table [2]

[1] PROPORTION OF POPULATION LIVING IN THE DISTRICTS WHERE THEY WERE BORN.

Provinces.	Percentage.
Madras	95·60
Assam	93·24
Bengal	92·66
North-West Provinces and Oudh	88·31
Central Provinces	87·62
Punjaub	87·12
Bombay	87·00
British Burmah	78·94
Berar	76·59
Coorg	58·01

[2] PROPORTION WHO HAVE MIGRATED TO DISTANT DISTRICTS.

Districts.	Total born in the district.	Total elsewhere.	In adjoining districts.	Difference between cols. 3 and 4.	Percentage of col. 5 on col. 2.
1	2	3	4	5	6
Arcot, North	1,848,162	115,378	105,147	10,231	0·55
Arcot, South	1,801,196	61,879	59,967	1,912	0·11
Bellary	1,273,879	27,047	21,156	5,891	0·46
South Canara	907,297	1,966	1,328	638	0·07
Chingleput	972,390	80,374	76,156	4,218	0·43
Coimbatore	1,654,288	46,778	43,249	3,529	0·21
Cuddapah	1,106,212	33,764	30,361	3,403	0·31
Ganjam	1,729,103	11,981	7,060	4,921	0·28
Godavery	1,704,046	19,917	16,053	3,864	0·23
Kistna	1,509,022	46,407	39,436	6,971	0·46
Kurnool	700,282	35,737	34,217	1,520	0·22
Madras City	357,378	62,388	38,344	24,044	6·73
Malabar	2,393,525	53,796	48,871	4,835	0·20
Madura	2,191,030	81,165	73,984	7,181	0·33

shows the proportion of the population who have left their districts to go to distant districts, that is to say to districts other than those immediately adjoining. It will be seen that the total figure is 135,256 or 0·44 per cent. Six decimal seventy-three per cent. of those born in Madras town are living in other districts. In migration to adjoining districts the proportion of males to females is 44 to 56; in migration to more distant districts the proportion is 55 to 45. The theory that there was extensive migration during the Madras famine of 1876–78 does not meet with confirmation so far as the figures of the 1881 census are concerned; if therefore there was migration, there was subsequent early return.

695. Migration to other Provinces.—The table at foot [3] shows the number of persons born in the Madras Presidency who were found in 1881 to have migrated to other provinces, whether by land or sea. Here again it will be seen that the Madras population do not move to any great distance. The emigrants to Bengal are probably all Ooriyas of the Ganjam district, and those to Bombay are probably inhabitants of South Canara who have moved into North Canara. The only migrations which are at all considerable, without however falling within the legal definition of emigration as above-mentioned, are those to Burmah, the Straits Settlements, and Ceylon. For geographical and political accounts of these countries see the article on Relations with Neighbouring States and Provinces in Chapter I.

696. Free migration to Burmah has probably taken place to an appreciable extent for the greater part of a century. At first the employment was confined to that of domestic service and the miscellaneous labour of mercantile ports. Subsequently agriculturists also migrated. At the present day the greater part of those who go to Burmah go to the ports, and return at the end of the shipping season. Women go in numbers for the purposes of prostitution, and stay some years. A temple was recently built at Coringa in the Godavery district at a cost of Rupees 10,000 by a woman of this class who had saved money and returned. From 40,000 to 50,000 Teloogoo coolies go annually to Burmah from Cocanada and other northern ports, and nearly all return as just mentioned. On the occasion of a

Districts.	Total born in the district.	Total elsewhere.	In adjoining districts.	Difference between cols. 3 and 4.	Percentage of col. 5 on col. 2.
1	2	3	4	5	6
Neilgherries	52,542	1,189	583	606	1·15
Nellore	1,272,430	81,171	76,715	4,456	0·35
Salem	1,593,674	58,318	50,934	7,384	0·46
Tanjore	2,093,728	64,323	50,931	13,392	0·64
Tinnevelly	1,707,309	33,137	23,087	10,050	0·59
Trichinopoly	1,201,492	82,283	71,885	10,398	0·86
Vizagapatam	2,560,018	93,957	88,338	5,619	0·22
Total ...	30,629,003	1,092,865	957,802	135,063	0·44
Poodoocottah Territory	298,293	20,490	20,297	193	0·06
Total, including Poodoocottah Territory ...	30,927,296	1,113,355	978,099	135,256	0·44

[3] Number of Persons who have migrated to other Indian Provinces.

Migrated to	Born in Madras Presidency.		
	Males.	Females.	Total.
Assam	416	337	753
Bengal	11,436	8,737	20,173
Berar	503	315	818
Bombay	19,935	12,687	32,622
British Burmah	62,348	12,082	74,430
Central Provinces	15,661	12,758	28,419
Ceylon	157,387	99,224	256,611
Coorg	17,395	7,500	24,895
Mysore	74,388	65,758	140,146
Nizam's Dominions	28,912	26,370	55,282
North-West Provinces	1,883	1,205	3,088
Punjaub	526	233	759

visit of the late Lord Mayo to Rangoon, one of the requests made in the memorial of the European commercial community was the introduction of a Labour Contract Law; and in April 1872 the Chief Commissioner of Burmah was asked to prepare the draft of a law that would meet the wants of the province. The Bill framed by the Chief Commissioner became law subsequently, after undergoing modifications. Meanwhile in 1873-74, during the Bengal famine, the question of promoting emigration to Burmah was taken up in Calcutta. In 1874 the Government of India sanctioned the establishment of a system of State emigration (under contract, and not under any special law) from Lower Bengal to British Burmah, and allotted 5 lakhs of rupees for the expenses. It was expected that the flow of emigrants from Bengal would in some small degree benefit the districts which were, when the experiment commenced, affected by the famine; but this anticipation was not fulfilled. Out of a total of about 7,400 emigrants, 5,683 were recruited in Calcutta and its suburbs, while only 1,541 came from famine districts. The system continued in force up to the end of December 1875, when it was determined to close the Calcutta agency and transfer the field of recruitment to this Presidency, where it was believed that labourers better adapted to the requirements of British Burmah could be recruited at less expense. By this time the Bill before spoken of had passed through the Legislative Council, and on 25th January 1876, the British Burmah Labour Act, India No. III of 1876, became law. This was a comprehensive measure, going beyond the provisions of the General Indian Emigration Act, inasmuch as its object was to provide, not only for the recruitment and transport of labour, but also for its regulation in the place of employ. An Emigration Agent and a Medical Inspector were appointed at Cocanada, which was selected as the best port of embarkation. In March 1877, when the Madras famine was at its height, the Chief Commissioner of Burmah hoped to be able to find work for 20,000 persons. An allotment of 19 lakhs was sanctioned by the Madras Government on condition that the emigrants were to be selected from the famine districts. Emigration began in the middle of September 1877 and continued till 31st March 1878, but altogether only 758 emigrants crossed over. The Act failed inasmuch as the natural conditions necessary for such a measure were absent.[4] Voluntary migration was not deficient, nor were there grounds for interference on the score of deficient protection in the country migrated to. The Act therefore could not forbid the voluntary transit of labour, and the consequence was that the Government took the field as a competitor with private agencies. Moreover the Act imposed too many obligations on the Government, and the system under it was rather one of contract between the labourer and Government, than of contract between the labourer and the employer. The Government in fact undertook to pay the emigrants' wages, whether they found employment or not. The Cocanada agency and the depôt at Rangoon cost Rupees 39,534 during the period for which they were open. The recoveries from the coolies were Rupees 2,086. The balance unrecovered was Rupees 37,448, and roughly speaking, the emigrants cost Government Rupees 50 a head. All operations under the scheme were accordingly stopped, and the Emigration Agent at Cocanada was in 1878 instructed to close his accounts, dispose of the depôt buildings, and dismiss his establishment. The Act itself has been repealed by India Act VII of 1883. With the view of encouraging emigration to British Burmah, the Chief Commissioner of that province has now made arrangements with the British India Steam Navigation and Asiatic Steam

[4] CONDITIONS OF A BURMAH LABOUR LAW.—A labour law may be required under two conditions: (1) when labour cannot be had by voluntary contract, except at great cost and with great difficulty; or (2) when, from local circumstances, special precautions are needed for the protection of immigrants. It has been held that neither of these conditions has existed in Burmah under recent circumstances. The want of Burmah is a settled agricultural population of Burmans or Shans to cultivate the extensive tracts of waste land in the interior. There is little, if any, real difficulty as to labour in the seaport towns. The province is in direct and constant steam communication with the Madras coast, whence labourers cross over to the Burmah rice-ports annually for the busy season, returning home with their savings at its close. The freedom with which these men can come and go at their own pleasure; the high wages they can command as coolies in connection with the milling and shipping of rice; the facilities they have for communicating with their homes while absent; the security from molestation which they enjoy in their intercourse with the Burmese; the easy terms on which they can be conveyed to and from their country; and principally the prospect of a speedy return to it: all these circumstances have militated against the success of any scheme directly controlled by Government. To give such a system a prospect of succeeding, the free labour system should first of all have been prohibited; but this would neither have been advisable nor practicable. The result has been that private employers secured the services of men who came over at their own expense, and made their own terms. Government, on the other hand, imported coolies at great cost, and had to feed and house them; while the coolies themselves deserted, Government being obliged to engage special police to watch them.

Navigation Companies by which these companies agree to carry deck passengers to Rangoon at reduced rates.

697. The earliest emigration to the Straits Settlements was from the south of the Madras Presidency. The emigrants were employed from the first both as domestic servants and as agricultural labourers. When the General Emigration Act, India No. VII of 1871, was passed, the Straits were not excluded from its restrictions, but on urgent representations of the injury to the agricultural industries of that colony, caused by the check in the supply of labourers, an Act No. XIV of 1872 was passed, enabling the Governor-General in Council to make the exemption by notification, and on the 6th June 1872 such a notification was issued. During the next four years there was correspondence regarding Straits emigration, which ended in the passing of an Ordinance, No. I of 1876, by the Straits Government, and of India Act No. V of 1877, specially regulating Straits emigration. By the ordinance, the Straits Government keep the Indian coolies under observation during the whole of the period of their contract. The cooly and his destination are registered, and the estates employing Indian coolies are inspected and regulated by the Government. The Straits Government undertakes to re-convey to India all coolies who become incapacitated for labour. India Act V of 1877 applies to this Presidency only. The only lawful ports of emigration are those notified by the Madras Government; and at present there are two such ports, Negapatam and the French port of Caricaul. The Head Assistant Collector acts as Protector at the former and the British Consular Agent at the latter port. Perak, on the mainland of the Malay peninsula, but not included in the Straits Settlements, tendered in 1878 for South Indian coolies, but as this arrangement would have fallen under the General Emigration Act and coolies would have had to embark therefore from Madras and not from Negapatam, the plan was abandoned.

698. It is probable that from the date of its European colonization the island of Ceylon attracted labour from the South of India. The migration now is on a larger scale than that to Burmah or the Straits, the greater part of the labour required on the coffee estates in the island being furnished from Southern India. At certain seasons of the year, when labour is in demand, the labouring classes of the southern districts travel across to Ceylon; and, when they have saved a little money, return again to their native villages. The cooly traffic between the south ports and Ceylon is constant and mutually advantageous to the people of India and to Ceylon. The high wages offered by the planters enable the people to save, and ultimately to take the position of small farmers in their own villages, while the planters in Ceylon can always obtain as much labour as they want by offering sufficient inducements. The Ceylon Government undertakes to see that the coolies are properly housed, fed, and provided with medical attendance, and the migration to and from the coffee districts is entirely voluntary. About 70,000 persons go over to Ceylon every year from the southern districts, and of these it is estimated that about 54,000 return to India. The others settle more or less permanently in the island. The table at foot shows the migration of the Madras population to Ceylon for the last twenty-two years as noted or estimated by Government officers. The real numbers are probably higher.[5] The greater part of the Ceylon coolies

[5] CEYLON EMIGRATION FOR TWENTY-TWO YEARS.

Years.	Number of Emigrants.	Years.	Number of Emigrants.
1862	68,896	1872-73	73,456
1863	70,718	1873-74	88,418
1864	81,800	1874-75	117,227
1865	89,597	1875-76	87,509
1866	88,528	1876-77	184,919
1867	42,769	1877-78	152,073
1868	51,033	1878-79	99,146
1869	58,689	1879-80	63,344
1870	65,114	1880-81	43,292
1871	89,529	1881-82	46,594
		1882-83	45,055
		1883-84	35,292
		Total ...	1,036,325

are probably doing better for themselves in the land of their adoption than they could hope to do in their native land. They are free to return whenever they please, and that they do not come back must be taken as an indication that they are content to remain. The emigration to Ceylon is specially excepted from the operation of the Colonial Emigration law by one of the sections of the Act. Free emigration of labourers, which prevailed throughout the territories of the East India Company, was originally extended to Ceylon by India Act XIII of 1847, on the ground that that dependency was geographically, historically and socially considered analogous to the continent of India. Further there was sufficient testimony to the general good treatment of the coolies in Ceylon. In 1873 when the question was again raised, it was decided to continue existing arrangements. All that is done by Government is to endeavour to check the statistics of emigration from the southern districts through the Collectors' offices. The Customs Superintendents at the ports whence emigrants usually embark take note of their numbers, and hence it is believed that a tolerably accurate account is taken of their movements. The emigration is regulated, as far as the Ceylon Government is concerned, by the Ceylon Ordinance No. XI of 1865.

699. Colonial Emigration.—As already indicated, there is room for a labour law, either in the interests of the employer where labour is hard to obtain, or in the interests of the employed when the relative strength of the parties to the contract is such that the Legislature must intervene to protect the weaker one. It is where one or both of these two conditions exist that the Government is concerned with emigration. The principal Indian legislative enactment on this subject is that which deals with colonial emigration, or emigration to countries beyond Indian waters.[6] The existing law is contained in the Indian Emigration Act, No. VII of 1871, and the rules thereunder for emigration from the ports of Calcutta, Madras, and Bombay, together with the Convention with France of 1861 and that with Holland of 1870. There is no Convention with Denmark. An amending Act, India No. XXI of 1883, has been passed, which will be the future Emigration Act for the colonies, and its application is imminent. The general system of colonial emigration may be thus described. Colonial Governments appoint persons of approved character to conduct emigration on their behalf from the Presidency towns of India. These agents employ recruiters, of whose respectability they are required to convince the Government Protector of Emigrants. The recruiters persuade persons to emigrate, and take them before the magistrates, who register the engagement. The recruits are then conveyed to Calcutta, Madras or Bombay, where they are housed under the immediate eye of the Emigration Agent in depôts which have been licensed as fit places for the collection of emigrants by the Protector. They are thence shipped on board vessels, which are also licensed, care being taken that they are equipped in every respect with what is needed to ensure the safety of the passengers on their long voyage; and there the direct concern of Government with the transaction ends. On obtaining information however that coolies are not properly cared for in the colonies, or that infectious disease prevails there, the Supreme and Local Governments have power to stop emigration and render it illegal.

700. Colonial emigration is lawful under different provisions of law to the British Colonies of Mauritius, Natal, British Guiana, Jamaica, Trinidad, the Windward and Leeward Isles, and the Feejee Isles; to the French Colonies of Réunion, Guadaloupe, Martinique, and French Guiana; and to the Danish Colony of St.

[6] Classification of British Colonies.—British colonies are divided into three classes. First, the Crown colonies, in which the Crown has the entire control of legislation, while the administration is carried on by public officers under the control of the Home Government; secondly, colonies possessing representative institutions, in which the Crown has no more than a veto on legislation, but the Home Government retains the control of public officers; and thirdly, colonies possessing responsible Governments, in which the Crown has only a veto on legislation, and the Home Government has no control over any public officer except its own representative. Of the British colonies with which Indian Governments are concerned, Demerara, Jamaica, Mauritius, the Straits Settlements and Feejee are Crown colonies; and the Leeward Islands, the Windward Islands, Natal and Ceylon possess representative institutions. There is no Indian emigration to any colony with a responsible Government; but the possibility of emigration to the Cape and to South Australia, both of which belong to the third of the classes enumerated, has been discussed. Emigration to Queensland, which also has a responsible Government, was sanctioned some years ago, but none has taken place.

Croix.[7] Under Section 24 of the 1871 Emigration Act, the Governor-General has power to extend emigration to places not already specified in that Act.

701. Emigration for the British colonies named above is provided for under India Act VII of 1871. In this case each Colonial Government concerned nomi-

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[7] SKETCH ACCOUNT OF DIFFERENT COLONIES, BRITISH AND FOREIGN.—(1) *Mauritius.* The islands of Mauritius and Réunion lie east of Madagascar. Both of these colonies were first regularly settled by the French, and both in the early years of this century fell into British hands. Mauritius has been a British possession since 1810. In both of these colonies slavery existed; it was abolished in Mauritius in 1834 and in Réunion in 1848. The abolition of slavery in British colonies in 1834 undoubtedly gave the first great impetus to Indian emigration. There are more Indian coolies in the Mauritius colony than in any other; the number on the 31st December 1877 being 141,309, or more than a third of the total population of the island, which in 1871 stood at 316,042. This is the only British colony from which emigrants get no return passages. Return passages were abolished in 1853, for emigrants thereafter embarking. (2) *Natal.* This colony is on the south-east coast of Africa. Its area is 18,750 square miles, and its total population, according to the census of 1877, 325,512. It is the only colony not in the tropics to which Indian emigrate. Except in a narrow belt, 15 miles in breadth, which lies between the first step of the interior tableland and the coast, and is cultivated with sub-tropical staples, such as sugarcane and coffee, its industries are not such as have hitherto been found suitable for the Indian labourer; they are rather those of the European colonist of Australia—horse and cattle breeding, sheep-farming, and the cultivation of the hardier cereals. British occupation dates from 1843. Notwithstanding the character of the colony, the number of Indian labourer there employed is considerable. The number of total Indian emigrants on 31st December 1882 was 24,459. (3) *Guiana.* Guiana, in the largest acceptation of the term, lies on the north-east shoulder of the South American Continent, between the Orinoco and the Amazon. This vast territory, with an estimated area of 700,000 square miles, is divided into Brazilian (formerly Portuguese) Guiana, Venezuelan (formerly Spanish) Guiana, and Colonial Guiana. The two former, comprising about five-sixths of the entire region, are now included within the limits of their several countries; whilst Colonial Guiana is that to which the general term of Guiana is now only applied. It is sub-divided into British, Dutch, and French Guiana, otherwise respectively known as Demerara, Surinam, and Cayenne. British Guiana, the most westerly of the three colonies, has an area of 76,000 square miles, and a population of 193,491. The first settlement was formed by the Dutch in 1580 on the rivers Pomeroom and Essequibo. The English began to establish themselves about 1630 in the neighbourhood of the rivers Berbice and Surinam. Most of British Guiana, however, remained in the hands of the Dutch till 1796, when it was surrendered to the English. It was restored to the Dutch in 1802, and was again taken by the English on the outbreak of war in 1803, and has since remained in their possession. Surinam, with an area of 59,051 square miles, and a population of 69,329, lies between British and French Guiana. Throughout the whole, or very nearly the whole, breadth of British Guiana a wide swamp district lower itself than the average sea-level, and in consequence very difficult, if not impossible, to drain, cuts off the available landstrip of the coast itself from the firm but distant highlands of the interior, and by so doing confines the choicest sugar-producing tracts of the colony to the immediate vicinity of the shore, where they are all arranged side by side in a long narrow belt, edged by the ocean to the north and the almost equally unmanageable morass on the south. In Dutch Guiana, on the contrary, a rise, slight but sufficient, of the continental level has thrust forward the swamp region from the interior down to the very shore, where it forms a barrier behind which the sugar lands and estates ensconce themselves, with no background so long as the Brazilian frontier remains undefined. Paramaribo, the capital, is described as a Batavian Venice in the equatorial tropics, in a land where it always seems afternoon. French Guiana, the smallest and least salubrious of the three colonies, occupies the outer curve of the northern coast, its form being that of a broken triangle. The area is 56,783 square miles, and the total population only 24,432. The sea margin extending over 200 miles is the inhabited part, and this has been partially cleared for the cultivation of sugarcane and other staples; but there is no open arable country throughout the colony. It is all dense forest and swamps which, during the hot season, here and there partially dry up. From the sea the country appears low and flat, except for a few hills sparsely scattered about. A jungle of mangrove, beginning on the sandy shore, forms an impenetrable rampart along the whole coast, which is intersected by a net-work of rivers and creeks in every direction. The placers, where the greater proportion of the Indian coolies have been employed in the deadly trade of gold-washing, are established many miles up the principal rivers and their branches, and can only be reached by boats, no roads, or even tracts, running to any distance in the interior. In 1874 there were serious riots among the emigrants in British Guiana, owing to reduction of wages consequent on the state of the sugar market. It is stated that there is a great scarcity of women in this colony. (4) *Jamaica.* The Island of Jamaica, with the Turks Islands, has an area of 6,900 square miles, and a population in 1871 of 510,354. Its configuration is that of a central mass of mountains, rising in places to heights of 7,000 or 8,000 feet, and surrounded by a low-lying margin. There have been complaints that the colony is decaying or decayed; but these the Colonial Government regards as unfounded. Total Indian emigrant population on 1st October 1883 was 13,245. (5) *Trinidad.* The Island of Trinidad was first colonized by the Spaniards in 1588. In 1676 the French held it for a short time, but it was speedily restored to Spain; and in 1797 it was taken by the British, who have retained possession of it ever since. The area is 1,755 square miles, and the total population in 1871 was 109,638. The island is well watered, and the soil generally fertile, but there is much mountainous and broken ground. The coolies in Trinidad are singularly well off. One noticeable feature in the colony is the success which has attended the system of granting lands to immigrants in commutation for the back-passage. (6) *Windward and Leeward Islands.* The Windward and Leeward Islands belong to the group of the Lesser Antilles which forms the south-eastern end of the insular chain which, stretching from the mouth of the Gulf of Mexico to the eastern point of the South American Continent, divides the Carribbean Sea from the Atlantic Ocean. Those of the Windward Islands which are now British are Barbados, Grenada, St. Vincent, Tobago and St. Lucia. Their total area is 775 square miles, and their population 284,078. The Indian Governments are concerned only with Grenada, St. Lucia and St. Vincent. Grenada has an area of 133 square miles and a population (inclusive of that of the Grenadines) of 37,684. It was ceded to Great Britain in 1783 by the Treaty of Versailles. The area of St. Lucia is about 250 square miles and its population 31,610. It abounds in mountainous ridges, valleys with flat, rich bottom-lands, and streams of considerable length and volume. Many of the valleys are very little higher than the level of the sea, and the natural drainage is imperfect. St. Vincent has an area of 131 square miles and a population of 35,688. The Leeward Islands, under British authority, comprise Antigua, Montserrat, St. Kitts, Nevis, Dominica and the Virgin Islands. At present the only islands which take coolies are St. Kitts and Nevis. St. Kitts is of volcanic formation. Its area is 68 square miles, of which, at the time of Mr. Geoghegan's Note, half was said to be cultivated mainly with sugarcane. The population in 1871 was 28,169. Nevis is a single mountain rising to 3,203 feet above the sea, and its area is calculated at 45 square miles. In 1871 it possessed a population of 12,074. Sugar is the chief product. Emigration to St. Kitts was first legalized by an Act of 1860. An application for its extension to Nevis was made in 1871. After some hesitation, and two calls for further information, a notification, No. 92, dated the 11th April 1873, declared the emigration of natives of India lawful to that island. The only other of the Leeward Islands needing remarks is Antigua, the most important of the Federation, and the residence of the Governor-in-Chief. It has an area of 108 square miles, of which about six-sevenths are under cultivation. (7) *Feejee Islands.* The colony of Feejee was ceded to the British Government in the latter part of 1874. It comprises more than one hundred islands lying between 15° and 19° south latitude. The area is 7,403 square miles and the population 142,000. The climate is exceedingly healthy for a colony within the Tropics. (8) *Réunion.* The island of Réunion, or Bourbon as it was formerly called, lies 400 miles to the east of Madagascar. It is 38 miles long and 28 broad with an area of about 1,579 square miles. It is entirely of volcanic formation, and one of the two mountains of which it consists is still an active volcano. It has a

nates, as above said, its agent and recruiters for the Presidency, and establishes its depôt for the reception of emigrants at the town of Madras; the Protector of Emigrants, assisted by a Medical Inspector, represents the local Government. The emigrant enters into an engagement with the recruiter in one or other of the districts for service in the colonies under certain conditions as to time of service, pay, rations, hours and days of work in the colony, and with free passage both to and from the colony. The only British colonies at present represented in practice in the Presidency are the Mauritius and Natal. The Mauritius, from which emigrants are not allowed free return passages, is an exception to the arrangement last mentioned. The time of service is usually five years. In the case of the Mauritius the monthly pay ranges from 5 to 7 rupees for an ordinary cooly, and from $5\frac{1}{2}$ to $7\frac{1}{2}$ rupees for return coolies emigrating a second time; the advance in pay is gained by progressive service in the colony. In Natal coolies are paid for the first year 10 shillings, for the second year 11 shillings, for the third year 12 shillings, for the fourth year 13 shillings, and for the fifth year 14 shillings. In other colonies the pay is usually 5 rupees. These rates apply only to workmen in the plantations; artizans and skilled workmen are paid according to qualifications. Female emigrants to the Mauritius generally proceed without engagement, their daily hire in the island being 4 annas per diem. In the rare case of an engagement Rupees 2 is promised for the first year only with rations. Female emigrants to Natal receive Rupees 3 per mensem in their first year with annual increments of six pence per annum till fifth year which salary amounts to Rupees 4-3-2. The emigrants have generally to work six days in the week, and nine hours in the day. Emigrants when recruited by the recruiter are registered in the mofussil by Magistrates, and at the Presidency Town by the Protector. The recruit is brought before the Magistrate or Protector as the case may be, and if he is found to understand the terms of the engagement, and to be willing to emigrate, he is registered and sent to the depôt belonging to the colony concerned, where he remains under the care and responsibility of the Colonial Agent and recruiter respectively till he embarks. The Protector of Emigrants and Medical Inspector of Emigrants inspect the depôts from time to time and see that the emigrants are well treated there. Previous to embarkation the vessel intended to carry emigrants is surveyed by competent Marine officers and certified to be fit to carry emigrants, and the Protector personally superintends embarkation. The stock of provisions and medicines, and the accommodation to be afforded, is prescribed by standing orders. The Protector is empowered to stop the embarkation of such emigrants as seem to him unfit to undertake the voyage. When emigrants return, the Protector inquires into the treatment experienced by them in the colony and during the voyage back, and a report is made to Government. Anything worthy of notice and requiring remedy is communicated to the Colonial Government concerned. The return emigrants from the British colonies can only land at the port of Madras, and their numbers are there registered. In 1883-84 the total expenditure incurred by the Natal Agency was Rupees 51,196-15-1, and by the Mauritius Agency Rupees 82,046-4-1.

702. For the French colonies mentioned above, in which case a special convention secures to the French Government similar advantages to those enjoyed

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population of 180,000, of whom about 2,000 are French. The average number of Indian coolies from 1871 to 1876 was 45,000. The French first settled here in 1665 and in 1810 it was taken by the British. It was restored to France in 1814 and has belonged to that power ever since. Slavery was abolished in Réunion in 1848. St. Denis, the capital of the island, is on the north coast. Cultivation is restricted to the coasts of the island, the mountainous region in the interior being without inhabitants. Sugarcane is the chief object of cultivation. Cloves, coffee, pepper, and tobacco are also cultivated. The emigration of British Indian coolies to Réunion has been suspended since 1882. (9) *Guadaloupe.* Guadaloupe is one of the groups of the Carribbean Islands. Slavery was abolished in 1848. The area is 1,028 square miles, and the population 151,594. The number of Indian emigrants in the island in 1876 was 13,543. (10) *Martinique.* The Island of Martinique lies to the south of Guadeloupe, the British island of Dominica intervening. The area is 617 square miles. The total population is 139,109. Judging from statistics of 1872, there are probably at this date about 10,000 Indian immigrants in the island. Martinique was colonized by the French in 1635. It was taken by the English in 1762, and again in 1794 and 1809, and was finally given up to the French in 1814. (11) *French Guiana.* This French colony has been noticed above. (12) *St. Croix.* The island of St. Croix in the West Indies is 74 square miles in extent, and has a population of 22,760. It was purchased by the Dutch West India Company from the French in 1733, and resold by the Company to the Crown of Denmark. In 1863 coolie immigration commenced by the arrival of 312 immigrants. In August 1873 all the then remaining immigrants elected to stay in the colony on receipt of bounty. The number actually left there in November 1874 appears to have been 87. The cost of importing the coolies in 1863, and of the back-passage for those who returned in 1868, was found to be so great that the colonists abandoned this mode of labour-supply and placed their dependence solely on the neighbouring islands.

by British colonies, the procedure is very much the same as for the British colonies. There are however two ports of embarkation; and two depôts, one at Pondicherry, and the other at Caricaul. The interests of the English Government are represented at Madras, where emigrants are only registered but whence they do not embark, by the Protector of Emigrants, and at the two French ports by two special officers styled British Consular Agents. India Act VII of 1871 applies to French colonies. Return emigrants from the French colonies land at Pondicherry, and are inspected there by the British Consular Agent. Emigration to Bourbon or Réunion ceased in 1882, the Indian Government being of opinion that there had been ill-usage of coolies. Emigration to French Guiana was also stopped in 1876, the climate and the gold-washing industry being both considered seriously prejudicial to the coolies' health. There thus remain at present only Guadaloupe and Martinique.

703. For the Danish colony of St. Croix no departmental provision has been made. India Act VII of 1871 applies to this colony.

704. LAW.—The collective law relating to emigration and still in force is contained in Madras Act V of 1866, an Act to regulate the manner of engaging and contracting with native inhabitants within any of the districts subject to the Government of Fort St. George, *for labour to be performed in any part of India beyond the territorial limits of the Presidency of Madras; in India Act VII of* 1871, an Act to consolidate the laws relating to the emigration out of India of native labourers; and in India Act V of 1877, a special Act to regulate the emigration of native labourers from the Presidency of Fort St. George to the Straits Settlements. India Act XXI of 1883, an Act to amend the law relating to the emigration of natives of India, will as soon as it is brought into force repeal India Act VII of 1871. The rules having the force of law are contained in foot-note [8] below.

705. GENERAL STATISTICS.—The subjoined abstract [9] shows the number of total emigrants and immigrants during the last eleven years, including Ceylon and the coast on the other side of the Bay of Bengal. The several countries to which the emigrants proceeded, with details of their numbers, are shown in the next statement.[10] Of the total number of emigrants in 1883-84, 62·9 per cent. went to Ceylon, 22·5 per cent. to British Burmah, 4·1 per cent. to Mauritius and Bourbon, 3·2 per cent. to the Straits Settlements, 2·7 per cent. to Natal, 1·6 to the West Indies and 1·4 to Gaudaloupe. The whole of the emigrants to Ceylon went, as usual, from Madura (15,820), Tinnevelly (18,705), and Trichinopoly (1,767), while those to British Burmah were exclusively from Ganjam (7,554) and Vizagapatam (5,105).

[8] EMIGRATION RULES HAVING THE FORCE OF LAW:—Under India Act VII of 1871, section 56, the following have the force of law:—(*a*) Rules—Public Notification, Fort St. George Gazette Supplement, dated 6th October 1874. (*b*) Amendment of these Rules—Government of India Notification, published in the Fort St. George Gazette of the 19th January 1875, prescribing Taylor's Sailing Directory for the use of emigrant ships; Government of India Notification in the Fort St. George Gazette of the 27th July 1875, which relaxes the stringency of Rule 34 regarding the proportion of adult females, more than 40 per cent. of whom may now be embarked; Government of India Notifications in the Fort St. George Gazettes of the 25th January 1876 and 25th July 1876, prescribing certain pilotage works for the use of emigrant ships to the West Indies; Government of India notifications in the Fort St. George Gazettes of the 12th December 1876 and 23rd January 1877, containing regulations regarding the use of fire and smoking in the 'tween decks, &c.; Government of India Notification in the Fort St. George Gazette of the 16th October 1877 regulating the reception and despatch home of such emigrants as may be entitled to a return passage; and Government of India Notification in the Fort St. George Gazette of the 18th May 1880, which provides for the ventilation of 'tween decks and hold.

[9] TOTAL EMIGRATION AND RETURN.

Years.	Emigrants.	Immigrants.	Years.	Emigrants.	Immigrants.
1873-74	99,282	82,114	1879-80	88,386	89,572
1874-75	132,692	85,444	1880-81	61,183	74,665
1875-76	98,258	82,053	1881-82	59,945	64,603
1876-77	197,979	91,145	1882-83	75,250	62,776
1877-78	169,089	92,317	1883-84	56,110	57,547
1878-79	117,148	88,846			

MEDICAL RELIEF.

706. INTRODUCTION.—Operations under this section consist of the operations undertaken by Government, or by Municipal and Local Boards in towns and rural circles acting under the orders of Government, for the medical relief of the population. This is done in the case of the Army by Military Hospitals attended by officers of the two Medical Departments (British Medical and Indian Medical);[1] and in the case of the general public by a system of civil hospitals, dispensaries, and asylums under the control of the Indian Medical Department. Officers of Government are medically attended by officers of the latter department. The general information and statistics regarding public health given in the yearly administration report of the Government are mainly those compiled by the Sanitary Commissioner from the mortality returns. Under the present head is given in that report merely the special information derived from the observation of patients treated in civil hospitals, dispensaries, and asylums.

707. PREVALENT DISEASES OF THE PRESIDENCY.—The most prevalent diseases are fevers, diarrhœa, dysentery, and other bowel-complaints, cholera, and small-pox. The cold season is that which is most fatal to natives. As a rule, mortality begins to decline with the setting in of the hot and dry season, rises again with the moisture of the south-west monsoon, and reaches its maximum in the cold-weather months of November, December, and January. The clothing of natives in general, and of the poor in particular, is insufficient protection against the wet and cold of the monsoon months. The labouring classes have frequently to toil for their livelihood in wet clothes, besides sleeping on flooring rendered damp by the weather. Congestions follow from these causes and account for the heavier mortality during the months specified.

708. LAW.—The law concerning Government Medical officers in the Presidency arranged under subject heads for reference is shown under the title "Medical

[10] COUNTRIES SUPPLIED BY TOTAL EMIGRATION.

Countries.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
To Mauritius and Bourbon (Réunion)	5,844	2,507	2,525	3,697	3,697	6,548	3,192	996	2,598	2,322
,, Ceylon	17,227	87,509	184,919	99,146	99,146	63,344	43,292	46,594	45,055	35,292
,, British Burmah ..	2,964	3,118	2,628	7,337	7,337	10,377	6,682	8,020	22,075	12,659
,, West Indies	3,043	908	2,881	105	105	3,147	2,733	640	796	931
,, Other places	3,614	4,216	...	6,863	..	4,970	5,284	..	6	..
,, Natal	..	..	..	..	..	..	..	1,763	1,358	1,532
,, Guadaloupe	..	..	4,993	..	6,863	..	..	322	671	784
,, Sylhet and Cachar ..	..	..	..	..	..	..	..	..	206	..
,, Akyab	..	..	..	..	..	..	..	..	113	..
,, Demerara	..	..	..	..	..	..	..	..	93	150
,, Martinique	..	..	..	..	..	..	..	536	261	368
,, Straits Settlements ..	..	..	..	..	..	..	..	1,074	1,759	1,803
,, Trinidad	..	..	..	..	..	..	..	..	..	65
,, Surinam	..	..	..	..	..	..	..	..	..	204
Total ..	132,692	98,258	197,679	169,089	117,148	88,386	61,183	59,945	75,250	56,110

[1] SKETCH HISTORY OF THE TWO MEDICAL DEPARTMENTS.—The Indian Medical Department was organized on a regular basis in 1786. It consisted of an establishment of Surgeons and Assistant Surgeons, and was administered by a Board consisting of a Physician-General, a Surgeon-General and an Inspector of Hospitals, with a Secretary. The senior Surgeons of the establishment were also employed in administrative duties in connection with the several divisions of the Army. In 1857 the Medical Board was abolished, and the department was then administered by a Director-General, an Inspector-General and ten Superintending Surgeons. Changes in the title and numbers of the administrative officers have from time to time been made since then. Up to 1880 the medical services connected with European and Native troops were conducted by two distinct departments, the former being administered by the Army Medical Department, and the latter by the Indian Medical Department, in addition to all the medical duties in connection with the Civil department. On the 1st April 1880, the whole of the military medical duties connected with both British and Native troops were placed under one administrative officer, whose official designation is Surgeon-General, Her Majesty's Forces. The amalgamation does not practically extend beyond administrative work, as the executive medical duties connected with European troops are still entrusted to medical officers of the Army Medical Department, and those pertaining to Native troops to officers of the Indian Medical Department. Prior to the reorganization in 1880, the staff of medical officers of the British service in this Presidency numbered 78, but at present its sanctioned strength is 53, including all grades. This reduction has been caused chiefly by the adoption of station hospitals instead of a separate hospital for each regiment or division of artillery, which has reduced the number of hospitals maintained for European troops. Each medical officer of the Army Medical Department comes to India for a tour of 5 years' service, but in special cases this term may, as regards executive officers, be prolonged beyond that period. Forty-nine medical officers of the several grades of the Indian Service are employed in connection with troops as compared with 66 before the reorganization in 1880. The decrease has been caused chiefly by the reduction of administrative appointments and of the number of native regiments.

Relief" in Appendix LIV, Vol. II. Under India Act XXXVI of 1858, Section 2 (Lunatic Asylums Act), rules having the force of law for the superintendence and management of the asylums have been published in the Fort St. George Gazettes of 17th March and 12th June 1868.

709. CONSTITUTION OF THE DEPARTMENT OF SURGEON-GENERAL, H.M.'S FORCES.—The administrative portion of the department consists of 1 Surgeon-General, who may belong either to the Army Medical Department or Indian Medical Service, and 2 Deputy Surgeons-General of the Army Medical Department, and 4 Deputy Surgeons-General and one Secretary and Statistical Officer to the Surgeon-General, belonging to the Indian Service. The executive establishment embraces 50 medical officers of the Army Medical Department and 44 of the Indian; while, in addition to these, all unemployed officers belonging to the latter remain under the orders of the Surgeon-General, H.M.'s Forces. The sanctioned subordinate medical establishment for the hospital service of British troops and certain Indian appointments at present consists of 117 warrant officers, and for Native troops of 126 hospital assistants. The warrant class of the subordinate medical department has this year been reorganized. The total strength will in future be 86, consisting of 8 senior Apothecaries, 24 Apothecaries, 41 Assistant Apothecaries, and 13 Sub-Assistant Apothecaries. Such of these as may not be required for military duty are lent to the Civil department. *On the 1st April 1883 an Army Hospital Native Corps, consisting of ward servants, cooks, water-carriers, and sweepers, was organized for service with British troops.* It consists of 400 men enlisted for general service, and is under the command of the Surgeon-General, subject to the orders of the Commander-in-Chief. On the 1st April 1882 the station hospital system was substituted for the regimental in the case of British troops, by which the number of hospitals was reduced from 27 to 19. The chief advantages resulting from the station hospital system are the concentration of the sick, the accumulation of the medical history of the successive bodies of troops occupying a station, and economy in personnel and material. The station hospital system is also in harmony with the approved organization of the Medical department of an army in the field. As regards Native troops the regimental hospital system is still in existence, and the number of such hospitals, including wings and the hospitals at Pallavaram and Vizagapatam for European invalids, is 45. There is also a depôt hospital at Pallavaram, for the treatment of sick of Native corps invalided from Burmah. In addition to these there are garrison hospitals at Bangalore and Secunderabad, and a detail hospital at Rangoon. In connection with the Contagious Diseases Act there are 7 military lock hospitals, for the treatment of diseased women, in the larger military stations of the Presidency. The Surgeon-General is responsible for the whole medical service of H.M.'s Forces in Madras and British Burmah, and is assisted in office work by a Secretary and Statistical Officer from the Indian Medical Department. He is kept informed as to the health of the troops by weekly and other returns and reports, and all questions relating to the sickness and sanitation of military establishments are referred to him. He arranges for the posting of medical officers in communication with the Commander-in-Chief, and regulates the distribution of the subordinate medical department and Army Hospital Native Corps. The expenditure of medicines and other hospital supplies is also under his control. Deputy Surgeons-General are subordinate to, and assist, the Surgeon-General in his administrative duties, and are the advisers of general officers commanding divisions and districts in medical and sanitary matters. They have also, subject to general or other commanding officers, command of medical officers and subordinates, and of the men of the Army Hospital Native Corps serving in their circles. They are responsible to the Surgeon-General, as well as to the general officers, that executive medical officers, subordinates and hospital attendants perform their duties properly, that the sick are cared for, that sanitation is attended to, that statistics and records are regularly kept, and that economy is exercised in the expenditure of supplies and stores. The Surgeon-General and Deputy Surgeons-General inspect barracks and hospitals annually, or oftener if necessary. Executive medical officers are in professional charge of officers and soldiers and their families, and also of all military establishments. The Surgeon-General is attached to Government, and not to Army Head-quarters, and communicates with

Government through the Military Secretary. In corresponding with the Commander-in-Chief he addresses him through the Adjutant-General and Quartermaster-General. In professional matters connected with British troops, he is subject to the Director-General, Army Medical Department, and his local representative, the Surgeon-General, H.M.'s Forces, Bengal. To the Government he submits annually a brief annual report for the official year on the health of troops, British and Native, and on the working of lock hospitals. For the calendar year he furnishes, for the information of Government, report on the sickness, mortality, and invaliding of British troops, sanitary report on British troops (through the Adjutant-General), report on enteric fever amongst British troops, report on lock hospitals (through the Adjutant-General), and return of mortality with the causes of death at each station in the European Army (for the Government of India). To the Director-General, he forwards a monthly statistical return of the health of British troops, as well as various minor returns. He also prepares for the annual Blue Book, submitted to Parliament by the Director-General, a report with complete statistics of sickness, mortality, and invaliding amongst British troops, and a sanitary report.

710. CONSTITUTION OF THE INDIAN MEDICAL SERVICE.—To the Indian Medical Department are allotted medical duties connected with the Native Army and the civil administration of the country; its members are also occasionally employed by Government on scientific and other extra-professional duties. The department consists of commissioned officers specially engaged for service in India and other Eastern Dependencies, and of subordinate grades. The Surgeon-General at the head of the department, whose official designation is Surgeon-General with the Government of Madras, is entrusted with the control and superintendence of medical establishments connected with Medical Store Depôts, Civil Hospitals and Dispensaries, and medical establishments attached to the Judicial, Revenue, Police, and other Civil departments. In matters connected with the Native Army this officer is subordinate to the Commander-in-Chief. There are four Deputy Surgeons-General of the Indian Medical establishment to each of whom is assigned a circle of superintendence. The establishment of Executive Officers consists of 11 Brigade-Surgeons, 64 Surgeons-Major, and 100 Surgeons, making in all 181 medical officers including the administrative grades. Duties of Civil or Zillah Surgeons are briefly to afford medical aid to all Government servants in the Revenue, Judicial, Police, Forest, Public Works, and other Civil departments of the State; to take medical charge of Jails, Civil Dispensaries and other hospitals at head-quarter stations; to hold the office of Superintendent of District Jails, and Sanitary Officer of the district, with the superintendence of vaccination. The Civil or Zillah Surgeon in each revenue district is designated the District Medical and Sanitary Officer. His duties in addition to the ordinary duties of a Civil or Zillah Surgeon are—(*a*) To advise the Presidents of Local Boards and Municipalities in all matters affecting the medical and sanitary administration of the district, and to lay before those officers all recommendations for the transfer, promotion or punishment, &c., of the subordinate medical and vaccine staff of the circle or municipality. (*b*) To consult with, and advise, the heads of the several departments concerned in regard to all medical subordinates attached to the Revenue, Police, Jail and other Civil departments within the district, before submitting his recommendations to the Surgeon-General with the Government of Madras. (*c*) To inspect as frequently as is consistent with his other duties all minor dispensaries in charge of medical subordinates, and the working of the vaccine and conservancy establishments of the district, especially in the larger towns and villages. (*d*) To supervise and control the medical establishments of jails, dispensaries or lunatic asylums at the district head-quarters, and to perform while residing at head-quarters all the ordinary duties now devolving on Civil Surgeons. (*e*) To check and control all indents on the Principal Medical Storekeeper for medical stores and instruments submitted by the various medical subordinates in independent charge throughout the district, as well as all other requisitions or bills for hospital supplies. In so doing the District Medical and Sanitary Officer is expected to restrain with a firm hand all tendency to wasteful or extravagant demand for European medicines, &c.; to encourage wherever prac-

ticable the use of indigenous drugs and materials; and to bring promptly to notice all instances of wasteful use of hospital stores or extravagance in management. (*f*) To collect from medical subordinates, Deputy Inspectors of Vaccination, &c., and to submit to the Presidents of Local Fund Boards and Municipalities, the Surgeon-General, or the Sanitary Commissioner, as the case may be, all departmental returns required by regulation of the medical and vaccine staff of the district. (*g*) To supervise the tabulation of the district vital statistics. The subordinate medical establishment consists of two classes, viz., the Apothecary and the Hospital Assistant class. In addition to the Military medical subordinates lent to the Civil department there are now employed and under training three classes of medical subordinates intended for service under Government in provincial hospitals and in the hospitals of Municipalities and of Local Fund Boards. These officials are designated respectively Assistant Surgeons, Civil Apothecaries and Civil Hospital Assistants, and are purely civil officers not amenable to military discipline or ordinarily available for military duty.

711. Civil Medical Relief.—The agencies for the relief of the sick poor in this Presidency are annually increasing under the operation of the Towns Improvement and Local Fund Acts. According to the latest information there were 287 hospitals and dispensaries in operation throughout the Presidency, the medical staff of which consisted of 37 Commissioned Officers, 4 Honorary Surgeons, 1 Native Surgeon, 19 Officers of the Warrant grade, 9 Military Hospital Assistants, 77 Civil Apothecaries, 93 Civil Hospital Assistants, and 47 Private Medical Practitioners, making a total of 287 medical agents. These institutions are open to all classes of the community applying for relief. Of the 287 institutions, 158 are hospitals having wards for in-patients; and 129 may be classed as dispensaries, inasmuch as they at present only afford relief to out-patients. A list of the civil hospitals and dispensaries in the Presidency is given in Vol. II, App. LXXI, and in the map, which is excluded here by necessities of publication, but will be found in the collection of maps given with Vol. III. Since the passing of the Towns Improvement and Local Fund Acts in 1871, the cost of maintaining hospitals and dispensaries has, under sanction of the law, been thrown on Municipalities and Local Fund Boards, and at the present moment the entire cost of all up-country civil hospitals and dispensaries is met by those Boards, with the exception of the pay of the medical officers when of the commissioned grade or of the grade of Honorary Surgeon. In the case of a Native or Assistant Surgeon, Warrant Officer, or Hospital Assistant holding charge of a civil hospital along with police or jail duties, or rendering other duties to the State, such as affording medical aid to public servants, &c., one-fourth of his pay ordinarily becomes a provincial charge in virtue of the latter duties. In most cases the local hospital is a joint charge on the adjoining Local Fund Circles and the Municipality in which it is situated, the expenses being divided between them. At the Presidency town the General Hospital, on account of its being a clinical school for the college students, and four other special hospitals are mainly supported by Government, the Madras Municipality contributing a lump sum annually in consideration of their utility to the general public. The cost of the Civil Lock Hospital in Madras is also partly borne by Government, but the maintenance of the other hospitals is purely a municipal charge. The Lunatic Asylum at the Presidency is maintained by Government, and at Calicut and Waltair Government support two lunatic asylums and a lazaretto at Paliport, together with civil dispensaries at the three large military stations of Secunderabad, Kamptee, and St. Thomas' Mount. Municipalities and Local Boards are required by law to maintain their civil insane patients sent for custody and treatment to the lunatic asylums. The cost of the civil hospitals on the Neilgherries is also partly met from provincial funds. The cardinal principle, however, of the existing system of medical relief for the masses in this Presidency is its maintenance by local taxation, consequently its extension depends chiefly on the action of the rate-payers. So far the new arrangement has proved no obstacle to the extension of medical relief, but would appear on the contrary to have given it a fresh impetus; dispensaries have multiplied rapidly under Local Boards, [2 & 3] and the increase in their number would have been still greater had the Medical Department been in a position to provide the requisite number of medical men

to take charge of the new institutions. The provision of medical men and their education and training were up to 1878 entirely undertaken by Government, but Local Boards are now required to provide their own medical schools, or to contribute to the maintenance of the Medical College. The Contagious Diseases Act, India Act XIV of 1868, is administered by a Health Officer specially appointed.

SANITATION.

712. INTRODUCTION.—Under this head the Government now control three things; vaccination, practical sanitation, and vital statistics.[1]

713. LAW.—The existing legal enactments in force are Madras Act III of 1871, the Towns Improvement Act; Madras Act IV of 1871, the Madras Local Funds Act; and Madras Act I of 1884, the City of Madras Municipal Act. The provisions

[2] STATEMENT SHOWING INCREASE IN HOSPITALS AND DISPENSARIES.

Years.	Number of hospitals and dispensaries in operation during the year.	Number of new dispensaries opened during the year.	In-patients.			Out-patients.		Average daily sick.	
			Treated.	Died.	Ratio per cent. of death to treated.	Treated.	Died.	In-patients.	Out-patients.
1873-74	109	...	22,150	1,726	7·792	486,199	247	959	4,190
1874-75	122	13	26,991	2,064	7·646	621,539	325	1,043	3,967
1875-76	134	12	28,968	2,470	8·526	725,380	Not recorded.		
1876-77	155	21	38,751	5,064	13·068	781,844	Not recorded.	1,792	6,373
1877	165	10	82,820	16,493	19·914	882,239	701	3,819	8,292
1878	171	6	65,649	8,722	13·285	1,074,575	1,804	3,056	8,195
1879	198	27	49,644	5,922	11·928	1,260,582	254	2,734	9,613
1880	218	20	38,870	3,249	8·358	1,274,434	561	2,071	9,963
1881	255	37	37,323	2,629	7·043	1,412,269	976	1,926	10,619
1882	275	20	37,456	2,681	7·157	1,510,120	2,224	2,020	10,935
1883	287	12	38,447	2,903	7·550	1,658,362	3,688	1,995	11,374

[3] STATEMENT SHOWING INCOME AND EXPENDITURE ON HOSPITALS AND DISPENSARIES FOR TEN YEARS.

Years.	Income.					Expenditure.				
	From Government.	From Municipal and Local Funds.	Subscriptions from Europeans and Natives.	From all other sources.	Total.	Establishment.	Medicines, European and country.	Diets and wines and spirits.	Bedding and clothing, hospital necessaries and miscellaneous charges.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1873-74 ...	2,65,364	1,49,005	26,039	84,931	5,25,340	2,35,995	46,123	1,06,005	1,09,749	4,97,874
1874-75 ...	2,46,872	2,69,883	36,703	82,950	6,36,409	2,64,910	75,732	1,23,818	1,26,226	5,90,687
1875-76 ...	2,72,191	3,50,975	24,479	62,742	7,10,389	2,95,335	96,449	1,36,398	1,40,172	6,68,357
1876-77 ...	2,55,296	3,52,613	33,397	72,697	7,14,003	3,16,732	92,459	1,46,121	1,12,910	6,68,224
1877 ...	2,97,090	3,91,078	26,006	4,51,503	11,65,678	3,11,071	81,039	2,21,090	1,14,470	7,27,672
1878 ...	3,48,983	3,81,072	28,077	4,81,221	12,39,354	3,52,518	1,27,222	2,06,291	1,06,167	7,92,199
1879 ...	3,04,847	4,74,403	48,266	4,57,022	12,84,539	3,56,758	1,67,857	1,88,557	1,22,435	8,35,607
1880 ...	2,76,266	4,52,437	28,218	89,030	8,45,952	3,64,223	1,24,878	1,31,152	1,28,242	7,48,497
1881 ...	2,79,736	4,62,234	28,358	90,898	8,61,228	3,85,974	27,077	1,19,615	1,54,240	7,86,908
1882 ...	2,73,167	4,89,672	30,209	61,968	8,55,017	4,13,917	1,30,770	1,33,069	1,13,585	7,91,342
1883 ...	2,88,644	4,27,004	22,816	93,079	8,31,543	4,26,145	1,17,417	1,34,522	1,37,070	8,15,156

[1] SKETCH HISTORY OF GOVERNMENT SANITATION IN THE PRESIDENCY.—*Vaccine Department.*—Vaccination existed as a department before the Sanitary Department proper was instituted. In 1802 the vaccine virus was first brought to India viâ Persia and Bombay, and by the exertions of Dr. James Anderson it was introduced in Madras and Calcutta. Prior to that year small-pox inoculation had been encouraged by the Indian Governments. On the introduction of the vaccine virus into Madras efforts were made in this Presidency during the concluding years of Lord Clive's administration to induce the people to accept vaccination in lieu of inoculation. It was held that looking upon the cow as a sacred animal, the Hindoos would more readily accept the change. Special arrangements were made for the encouragement of vaccination. A depôt was established in a central station in the Presidency under the superintendence of a skilled surgeon. His principal duty was to maintain and furnish up-country stations with supplies of vaccine lymph; and a medical officer was appointed at each superintending surgeon's station to encourage and practise vaccination. The surgeons attached to the courts of circuits were also required to prosecute vaccination in addition to attending to the medical wants of the establishment, receiving as remuneration full batta for extra expenses incurred, and ten pagodas for every hundred successful operations performed by them. Native medical practitioners also were instructed in the art and were employed in the revenue districts to practise it. Treatises were compiled explanatory of Jenner's discovery, which were translated into the vernacular languages and circulated at the expense of Government. The native practitioners received ten pagodas for every hundred successful operations performed. These arrangements were in force for about three years, when in 1805 a Superintendent-General of Vaccination was appointed and the system of payment by results was abolished. Surgeon Alexander Mackenzie was the first officer selected for the

of these Acts relating to vaccination are contained in section 26, clause III, of Madras Act IV of 1871, under which the funds raised under this Act are applicable to the purpose of training and employing vaccinators and medical practitioners; and section 378 of Madras Act I of 1884 under which vaccination is made compulsory

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appointment. He was not placed under the orders of the Medical Board, but held direct communication with Government, through the Secretaries in the Revenue and Judicial Departments. The surgeons attached to the provincial and zillah courts, who were appointed vaccinators on specific salaries, were placed under his control, and his duties were to use his own personal exertions in vaccinating as large a number of patients as might be practicable, submitting monthly returns to Government; to superintend and control medical officers, European and Native, employed in vaccination; and specially to prevent any abuse. The duties of the surgeons attached to the provincial courts were, by distributing the vaccine matter and by their own personal exertions as vaccinators, to facilitate as much as possible the extension of vaccination; they were also to receive reports from the zillah surgeons and transmit them to Superintendent-General. The duties of the zillah surgeons were to extend the practice of vaccination by their own personal exertions, and by the superintendence and control of the natives employed. Four native practitioners, subordinate to the surgeons, were employed in each zillah with fixed salaries. With all the efforts made at the time, vaccination did not however find that favour with the people which the Government had expected. The Medical Board writing in 1807 observe "prejudices have led the natives to suspect even the benevolent intentions of Government, from the anxiety that was shown to diffuse vaccination, and caused them to attach to it many foolish intentions." It is to be regretted that after three-quarters of a century, these prejudices still exist among the masses of the people. One of the chief objections brought forward to vaccination was that Mauriamma, the goddess of small-pox, would be offended if artificial means were adopted to avert the malady. The obstacles to vaccination from a religious point of view were clearly foreseen by the Medical Board in 1807. After some years changes were made in the department which resulted in the abolition of the Superintendent-General and the transfer of the control of the vaccine establishments in the revenue districts to officers of the Revenue Department. This transfer was not considered productive of good results, and in 1851 the Government again placed the supervision and control under the Medical Department, giving the civil surgeons of districts the principal control. From 1851 to 1855 no material improvement took place. The civil surgeons rarely left their stations; they were consequently unable to exercise the necessary supervision and satisfy themselves by personal inspection of how the vaccinators worked, and the nature of their work. In 1855, on the recommendation of the Medical Board, five assistant apothecaries were attached to the civil surgeons in Nellore, Malabar, Coimbatore, Salem, Bellary, and Kurnool, for the purpose of itinerating from talook to talook to inspect the work of vaccinators. They were designated Circuit Superintendents of Vaccination and placed under the orders of the zillah surgeons. Their duties were to superintend the work of the native vaccinators with a view not only to advance vaccination by increasing the number of operations, but to ensure also the accuracy of the returns and to keep up a supply of pure and effective lymph. The reports of these officers disclosed a discreditable state of things, both among the vaccinators and the native officials. The vaccinators worked only on one or two days in the week and scarcely ever went out beyond the principal towns and places, near to their own settled residences. Unfortunately before the system of inspection could be continued and extended to other districts, the Bengal Mutiny in 1857 intervened, and the apothecaries who were employed as Circuit Superintendents of Vaccination were withdrawn for service in the Military Department. In 1860, when the question of the re-modelling of the Subordinate Medical Department was under consideration, it was suggested that the Vaccine Department should be incorporated with the civil branch of the Subordinate Medical Service, and that vaccinators should go through the same course of training as hospital assistants. The recommendations thus made were carried into effect in 1865, when Dr. J. Shortt, an able man of science, was appointed Superintendent-General of Vaccination and entrusted with the organization and supervision of the new establishment. The newly-organized department consisted of one Superintendent-General of Vaccination, with an establishment of 11 deputy superintendents and 145 vaccinators. Formerly there was a vaccinator appointed to each talook in a district, but under the new arrangement there were 13 or 14 vaccinators and one deputy superintendent to every two collectorates. The vaccinators worked in a body under the personal supervision of the deputy superintendent, traversing the district systematically from one end to the other so as to visit every village and hamlet in it. There were, however, two drawbacks in the revised establishment: first, the number of vaccinators was considerably reduced owing to the higher pay of the hospital assistants who were appointed as such, without a commensurate increase in the total allotment for the establishment; and, secondly, the social status of some of the hospital assistants was not what it should be, the caste of the operators being unacceptable to the people. Notwithstanding these disadvantages the intentions of Government in regard to vaccination were in a measure fulfilled for the first time since its introduction. In 1868 it was discovered that the Vaccine Department in Madras was more costly than in many other parts of India, and the expense was held to be incommensurate with the results which had been attained. The higher grades of the department were reduced. On the other hand the staff of vaccinators was increased. The staff of vaccinators was increased from 145 to 255 and divided into two classes—first and second—the former on Rupees 18 and the latter on Rupees 10 a-month, and at the unanimous request of the several Collectors, the circle system was abolished, that is to say the vaccinators instead of working in groups, as hitherto under the immediate supervision of the superintendents, were dispersed over a district, one or two being appointed to each talook. The department thus re-modelled, and under the control of the medical authorities, was paid from Provincial Funds and was in existence for seven years. In 1875 the vaccine staff in the several districts was transferred to the Local Fund Boards and were thenceforward paid from Local Funds. The Superintendent-General of Vaccination, whose duties were then restricted to inspection and report, was designated "Inspector of Vaccination," and made subordinate to the Sanitary Commissioner next to be mentioned instead of to the Surgeon-General. The reasons for incorporating the Vaccine with the Sanitary Department are given in (3). (2) *Sanitary Department.*—The Sanitary Department proper had its origin in the year 1864. During the first occupation of India by the English, the necessities of war usually determined the site of military encampments. These in course of time became permanent military cantonments, with little consideration of the sanitary questions arising out of the locality. Attention was presently drawn to the fact that the mortality at these stations among the military and other officials far exceeded that of the community residing beyond military limits, and it was, moreover, observed that an epidemic once established had a special attraction for such localities, often maintaining an existence in them for a period exceeding their course elsewhere. These circumstances induced Parliament in 1859 to nominate a Royal Commission to inquire (1) into the classes of disease and the rate of sickness, mortality and invaliding amongst the European and Native troops in India; (2) into the causes giving rise to disease whether as relates to climate or locality, faultiness in barracks, drainage, water-supply, diet, drink, dress, duties or habits of troops; (3) into existing unhealthy military cantonments and the remedies to improve their sanitary condition, also into the subject of healthy positions, sanitaria and hill stations generally, with a view to future occupation; (4) into the best construction of barracks, huts, hospitals and tents for India, and into the best means of enforcing Medical and Sanitary Police. The Royal Commission closed the inquiry in 1863 by a report, in which, as regards the condition of the European Army in India, it was found: first, that officers died at the rate of 31 per 1,000 per annum; second, that soldiers died at the rate of 69 per 1,000; third, that European civil population died at the rate of 20 per 1,000 per annum; fourth, that the mean lifetime of Europeans residing in India is shortened by 21·8 years. The Commission submitted certain recommendations based on their inquiries, and urged the appointment of local commissioners of public health in order to ensure the gradual introduction of sanitary improvements. Sanitary Commissions were accordingly appointed in the three Presidencies of Bengal, Madras and Bombay in 1864, and were so constituted as to represent the various points of view from which the subject should be considered—Civil, Military, Medical and Engineering. Their duties were partly consultative and partly administrative. They were "to give advice and assistance in all matters relating

in the town of Madras. The provisions relating to sanitation are found in sections 96 to 155 of Madras Act III of 1871 regarding the general conservancy of towns and houses therein; in section 26, clause III, of Madras Act IV of 1871, under which Local Funds may be applied to the construction and repair of hospitals, dispensaries, and lunatic asylums, to the sanitary inspection of towns and villages, the cleansing of the roads, streets, tanks and any other local works of public utility calculated to promote the health, comfort, and convenience of the people; and in sections 212 to 393 of Madras Act I of 1884, which relate to the conservancy of the town of Madras and contain general sanitary regulations. The sections of these Acts relating to vital statistics are sections 88 to 95 of Madras Act III of 1871 and sections 394 to 404 of Madras Act I of 1884. The Towns Improvement Act will cease to apply in any municipality to which the new Madras District Municipalities Act, IV of 1884, may be extended. Sections 129 to 142 of the latter apply to vaccination, sections 125 to 128 and 143 to 242 to sanitation, and sections 243 to 249 to vital statistics. Similarly Madras Act IV of 1871 will be superseded by the new Madras Local Boards Act, V of 1884, in any district in which the latter is brought into force. Sections 102 to 116 of the new Act relate to vaccination and section 95, clause III, 99 to 101, 117 and 118 to sanitation.

714. CONSTITUTION OF THE DEPARTMENT.—The entire sanitary department, viewing it as such, is made up at the present moment as follows; but it is scarcely

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to the public health, such as selection of new stations and the sanitary improvement of existing stations and bazaars; to examine new places for barracks and hospitals; to advise on the laying out of stations and bazaars, the sanitary improvement of native towns, prevention and mitigation of epidemic diseases; and generally to exercise a constant oversight on the sanitary condition of the population, European and Native; to report on the prevalence, causes and means of preventing sickness and disease." In April of that year, the Sanitary Commission in Madras was formed, consisting of a President and four members, one of whom was the Secretary. The first President was a member of the Civil Service; the members were an officer of the Royal Engineers, two medical men, and a military officer. The Commission thus constituted was in existence till 1866, when a reorganization took place. From the 1st of May of that year the permanent members were dispensed with, and the duties hitherto performed by the Commission were carried on by a Sanitary Commissioner aided by a medical officer as Secretary; but whenever it seemed desirable to assemble committees for the consideration of any particular subject, then officers, Civil, Military, or Medical, best acquainted with the subject were to be associated with the Sanitary Commissioner in any part of the country where it seemed desirable. Originally the duties of the Sanitary Commissioner were chiefly of a military character, in fact the appointment was first created mainly with a view to military requirements and was connected with the Military Department, all communications with Government being submitted through the Military Secretary, and all the expenses of the department being included in the military budget. The civil portion of the Commissioner's duties however having gradually increased, it was decided in 1869 that he should thenceforward be placed under the orders of the Civil Department, and that all expenses connected with the appointment should be transferred to the civil budget. This transfer took place on the 1st of April 1869. In this same year, on the death of the then Secretary to the Sanitary Commissioner, the Secretaryship was abolished. The Sanitary Commissioner has now to deal with the health of the Presidency at large, and his duties lie mainly with the civil branch of the administration. The appointment, though considered purely a civil one, still admits of sanitary questions connected with the army being referred to him, and he is still an adviser of Government in its Military Department and can inspect all stations, &c., within or without the Presidency wherever Madras troops may be garrisoned. (3) *Amalgamation of Vaccine and Sanitary Departments.*—In 1875, as already stated, the Vaccine staff, hitherto paid from Provincial Funds, was taken over by Local Boards. It was argued on this occasion that the supervision and control of vaccination had been placed under the Medical Department at a time when "preventive" medicine had not been recognized as a distinct branch of the profession. Now that a separate department of Government was in existence, which took special cognizance of all public health questions, and as vaccination was nothing more than a "preventive" in regard to a particular disease, the control of the department and all questions connected therewith should properly be assigned to the Sanitary Department. The control of the Vaccine Department was accordingly at the commencement of the official year 1875-76 transferred from the Medical to the Sanitary Department, the Superintendent-General of Vaccination, whose designation was changed to Inspector of Vaccination, being made subordinate to the Sanitary Commissioner. In April 1878, the Inspector of Vaccination was constituted a Deputy Sanitary Commissioner under the designation of Inspector of Vaccination and Deputy Sanitary Commissioner, and was required to take a part in the sanitary inspection of the districts he visited. In 1880 it was decided that not only the Inspector of Vaccination and Deputy Sanitary Commissioner, but the whole of the Vaccine staff and the civil surgeons of districts should be utilized in the sanitary administration. A committee composed of the Board of Revenue, the Sanitary Commissioner, and the Surgeon-General with the Government of Madras sat to consider the details. A difficulty as to removing zillah surgeons during tour from their charge of District Jails, of which they are the Superintendents, was settled by making arrangements for the appointment of Assistant Surgeons to each district. In 1883 zillah surgeons were appointed as District Medical and Sanitary officers. Their duties, in connection with the Vaccine and Sanitary department were then defined to be:—to advise Collectors in matters affecting the medical and sanitary administration of the district, and to lay before those officers recommendations for the transfer, promotion or punishment, &c., of the subordinate Medical and Vaccine staff of the circle or municipality; to inspect as frequently as was consistent with their other duties the minor dispensaries in charge of medical subordinates, and the working of the Vaccine and Conservancy establishments of the district, especially in the larger towns and villages; to collect from medical subordinates, deputy inspectors of vaccination, &c., and to submit to Collectors, the Surgeon-General or the Sanitary Commissioner, as the case might be, all departmental returns required by regulation of the Medical and Vaccine staff of the district; and to advise the Collector in regard to the tabulation of the district vital statistics. (4) *Vital Statistics.*—Death registration was first attempted in this Presidency in 1855 in the town of Madras only. In 1863 the Royal Commissioners in their report on the sanitary condition of the army in India drew pointed attention to the absence of all information in regard to the vital statistics of the general population, and in recommending the formation of Sanitary Commissions they also urged the introduction of a scheme for the registration of the life and death statistics of the general population. Thus in 1865 an attempt was made to register the mortality of the people in the Madras Presidency by means of the Revenue Department. From that time death registration has been continued and in 1869 births as well as deaths began to be registered. The operations are still conducted by means of the Revenue Department, but monthly returns of births and deaths are forwarded to the Sanitary Commissioner.

yet organized as a distinct department. At the head of it is the Sanitary Commissioner, holding direct communication with Government. He is assisted first by a Deputy Sanitary Commissioner, who is also specially in charge of the vaccination establishment and operations, secondly by the District Civil Surgeons in their capacity of District Sanitary officers, and thirdly by the subordinate establishment of different classes. The Sanitary Commissioner himself is the adviser and referee of Government, Municipalities, and Local Fund Boards, in matters relating to local expenditure for drainage, water-supply, conservancy, vaccination and questions connected with the prevention of disease and the preservation of health. He has also the direction and control of an inspecting vaccination agency. He controls vital statistics. The inspection of municipal towns engages the special attention of the Sanitary Commissioner, while the smaller towns and villages in the interior of a district are usually inspected and reported upon by other officers. In his tours of inspection, the Sanitary Commissioner visits jails and lunatic asylums of which he is an official visitor. Notes of his inspection containing suggestions for the improvement of the sanitary condition of the places visited by him are forwarded to Government and to the district authorities. The returns which he receives and sends are shown in the foot-note.[2] The remainder of the organization and the functions of the different officers can best be seen from the following paragraphs on the work done by the department.

715. WORK OF THE DEPARTMENT.—The vaccine establishment under the Sanitary Commissioner, as at present constituted, consists of an Inspector of Vaccination and Deputy Sanitary Commissioner, of first and second class deputy inspectors of vaccination, of first and second class vaccinators, and of probationary and volunteer vaccinators. The latter are more properly candidates preparing for admission into the department on the occurrence of vacancies. The general supervision of the department devolves on the Inspector of Vaccination and Deputy Sanitary Commissioner. He visits all parts of the Presidency for the purpose of inspecting and reporting on the vaccinators' work and the progress made in vaccination. In addition to vaccine inspection he also takes a part in the sanitary inspection of districts. Notes of his inspections on vaccination are submitted to the Sanitary Commissioner, who forwards copies of them to the Local Boards concerned. District Medical and Sanitary Officers also inspect, as frequently as is consistent with their other duties, the working of the vaccine establishment in the several districts. Immediate supervision of the vaccinators' work is carried on by the

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[2] REPORTS AND RETURNS OF THE SANITARY DEPARTMENT.—The periodical returns and reports *received by the* Sanitary Commissioner, and from which he compiles and tabulates materials for his annual report, are as follows:—"a," Weekly returns of sickness and mortality of the European and Native Armies—the latter he receives direct from the Regimental Medical Officers and are retained in his office for record, while copies of the former are furnished to him by the Surgeon-General, H.M.'s Forces, which, after making such extracts as may be required by him for his report, are returned; "b," Annual sanitary reports from cantonments and military stations; "c," Monthly birth and death returns from cantonments and stations; "d," Monthly returns of sickness and mortality and annual sanitary reports from the several districts and Central Jails in the Presidency; "e," Monthly vital statistical returns of the general population from the several collectorates; "f," Monthly birth and death returns from the several municipal towns; and "g," Annual sanitary reports from Municipalities and Local Fund Boards. Besides the above, he receives separately weekly returns of births and deaths from Municipalites containing 25,000 inhabitants and upwards, which he publishes in the Gazette in one general return compiled in his office. On the outbreak of cholera in districts, daily reports of the disease are forwarded to him by the Revenue authorities, from which he tabulates one general table of attacks and deaths, and forwards copies of it to the Surgeons-General with the Government of Madras and H.M.'s Forces, to the Quartermaster-General, and the Sanitary Commissioner with the Government of India, for information. Extracts of the budget estimates relating to vaccination and sanitation of Local Fund Boards and Municipalities are forwarded to him, which he reviews and reports on to the Board of Revenue and Government as regards the sufficiency or otherwise of the proposed allotments for these objects. At the end of every calendar year the Sanitary Commissioner draws up and submits to Government an annual sanitary report, which deals with "a," the health of the general population during the year in districts and municipalities, "b," general history of chief diseases—cholera, small-pox, fevers, bowel-complaints and injuries, "c," general history of vaccination, "d," the stational sickness and mortality of the European and Native armies in the Madras command and the sanitary works begun, in progress, or completed during the year in each cantonment or station, "e," health of prisoners in jails, and contains "f," general remarks on the sanitary works and sanitary expenditure in Municipalities and Local Fund Boards, and "g," general remarks and a record of the personal proceedings of the Sanitary Commissioner during the year. He also submits to Government a monthly report on, and an abstract statement of, the vital statistics of the districts and municipalites in the Presidency which is published in the "Fort St. George Gazette," and forwards to the Sanitary Commissioner with the Government of India a monthly return of cholera in the Presidency. To the Registrars-General of England, Dublin and New York is likewise forwarded a weekly return of births and deaths and meteorological results in the city of Madras. The transactions of his office are published in the form of monthly proceedings which contain replies to references on sanitary subjects and all papers relating to sanitation, vaccination, &c., communicated to the Sanitary Commissioner by Government and others. These proceedings are supplied to all Local Fund Boards and Municipalities, to the several Sanitary Commissioners in India, to the Revenue, Medical and other departments; thus each local body is kept acquainted with subjects of a sanitary nature and the sanitary improvements which are being carried out in other parts of the Presidency and of India. Copies of the proceedings are also forwarded to the Government of India direct and the Secretary of State through the Madras Government.

deputy inspectors of vaccination, of whom there are one or more in each Local Fund Circle. They are all in direct subordination to the Inspector of Vaccination and Deputy Sanitary Commissioner, and their appointments, dismissals, &c., lie with the Sanitary Commissioner. They are required to be constantly on the move, travelling from village to village within their ranges inspecting the vaccinators' work. At the end of every week they submit, through the District Medical and Sanitary Officer, to the Inspector of Vaccination and Deputy Sanitary Commissioner and to the Presidents of Local Fund Boards, a diary containing notes of their inspection under several specified heads. They receive from the vaccinators weekly and monthly returns of the work done by them, from which they compile a monthly return which they forward to the Inspector of Vaccination and to the Presidents of Local Fund Boards, and at the end of every calendar year they submit to these same officers an annual report and returns of the year's transactions. The actual work of vaccination is done by the different classes of vaccinators, viz., Local Fund, Municipal, Government, Zemindarry and Cantonment vaccinators; medical subordinates attached to the Army, Civil Dispensaries, and to the Revenue, Jail, Police and Survey departments are also required to practise vaccination as far as lies in their power. Vaccinators are appointed by Local Fund Boards and Municipalities under whose orders they are. There should at least be one of the first grade in each talook and municipal town, and as many of the second grade as may be found necessary. There is no uniform minimum amount of work fixed that a vaccinator, either of the first or second class, should turn out in a month. The minimum is determined by the several Local and Municipal Boards according to the circumstances of the circle or town. With few exceptions the whole cost of vaccination in the Presidency is borne by Local and Municipal Funds. The establishments in Ganjam and Jeypore hill tracts, Gudem hills and Bhadrachellam are maintained by Provincial Funds, and Government contributes the pay and allowances of the Inspector of Vaccination and Deputy Sanitary Commissioner and Cantonment vaccinators. The salary of a deputy inspector of vaccination is to be not less than Rupees 60 per mensem for a first, and Rupees 40 for a second class, and their travelling allowance is regulated by the Travelling Allowance Code. The pay of a first-class vaccinator is to be not less than Rupees 15 a month, and that of a second-class Rupees 10 with travelling allowances, of not less than 8 and 4 annas per diem respectively. The department is regulated by a code of rules called the Vaccination Code.

716. As regards practical sanitation, the cardinal requirements everywhere are doubtless the cleansing of premises and streets, the safe removal and disposal of house sewage, and the careful guarding from contamination of drinking water. In the smaller towns it is probable that the most efficient arrangements regarding drainage, at least for the present, will be to level and improve the surfaces of public streets, lanes, and house compounds, to provide ready escape for rain and surface water by well-made impervious surface drains, properly graded to the outfall, so that all water may flow rapidly away and nowhere form surface pools, and to combine with this an efficient conservancy system, to keep as much of the house sewage as possible out of the surface drains. Shutting up bad wells and improving and protecting existing wells from subsoil pollution is another necessary step in sanitation. The Zillah Surgeons have to make tours of inspection and report on the sanitary condition of places visited by them to the local authorities and the Sanitary Commissioner, and recommend improvements where necessary. They are to advise Local Fund Boards and Municipalities on all matters affecting the sanitary administration of the district. Deputy Inspectors of Vaccination when visiting villages for vaccination purposes are required to report at the same time on the water-supply, conservancy, and public health of the villages.

717. The mode of birth and death registration differs in towns and in the country. Among the town population the Towns Improvement Act, Madras No. III of 1871, makes registration of births and deaths compulsory in the areas affected by the Act and special registrars are appointed for collecting and registering the events. In the districts among the rural population, the voluntary system still obtains and registration is effected without any special law. It has been held that the time has not yet arrived for making registration of births and

deaths generally obligatory by law in villages beyond municipal limits, but the organization of a proper system of registration by which the rural population may be gradually prepared for a compulsory law is under consideration. The system at present pursued in the rural districts of the Presidency is as follows. The curnum or village accountant keeps a record of the births and deaths occurring in his village, obtaining his information from the village dhoby or washerman and the village taliary or watchman. Revenue Inspectors supervise the registration. A monthly abstract of records thus kept, containing particulars of age and cause of death, is transmitted to the Collector through the talook authorities. The talook returns are tabulated in the Collector's office and forwarded in a monthly form to the Sanitary Commissioner, who in turn submits a monthly abstract to Government, by whom they are periodically published in the Government Gazette.

718. FINANCIAL.—The outlay on sanitation is undertaken chiefly by Local Fund Boards and by Municipalities. Sanitary expenditure by Local Fund Boards is divided technically into three classes; improvement of water-supply, enlargement or improvement of village-sites, and conservancy of towns and villages. The main source of income of Local Fund Boards is the land-cess, two-thirds of which is devoted to communications. The remaining third is available for other objects, and, though there are some minor sources of income, may be taken roughly as the income available for miscellaneous expenditure. This third is divided amongst four claimants—Education, Medicine (hospitals and dispensaries), Conservancy and Hygiene (the last including vaccination). The ratio of distribution is decided in each case on its merits. Municipal sanitary expenditure is devoted to conservancy, improvement of town-sites and water-supply, sanitary arrangements during fairs and festivals, construction and repair of drains, markets and slaughter-houses, &c. The total estimated receipts are taken as a figure on which to calculate the proportion of the sanitary allotment.

719. STATISTICS.—The table at foot [3] shows the results of vaccine operations for a series of years from 1865. In the fourth column of this statement, by primary vaccination is meant vaccination performed on a subject for the first time as opposed to "re-vaccination." The number of births is given in the fifth column to show what proportion of children born in each year was protected, which can be ascertained by comparing the number successfully vaccinated under one year of age with the births. The deaths from small-pox are given in column 6 to show the influence of vaccination thereon. The total cost of vaccination in 1883 was Rupees 1,72,177. A statement at foot [4] shows the amount sanctioned and expended for sanitary purposes in the mofussil municipalities of this Presidency in four recent official years. A similar statement for the Local Fund Circles of the Presi-

[3] VACCINATION STATISTICS.

1	2	3	4			5	6
			Primary vaccination. Successful.				
Years.	Total number vaccinated.	Successful.	Under 1 year.	Over 1 and under 6 years.	Above 6 years.	Births.	Deaths from small-pox.
1865	191,394	162,195	Particulars not available.			Not available.	Not available.
1866	194,509	168,057				Do.	23,106
1867	270,749	242,579				Do.	27,907
1868	264,696	236,817				Do.	34,330
1869	255,685	230,207				452,410	17,448
1870-71	257,581	232,935				439,063	11,252
1871-72	279,893	249,698				517,109	20,823
1872-73	337,851	303,057				554,379	39,074
1873-74	366,770	330,443				538,123	51,784
1874-75	426,133	370,731				580,709	48,343
1875-76	381,412	317,561				638,771	24,775
1876-77	483,192	409,574				632,113	23,469
1877-78	787,730	655,407	68,110	98,769	481,318	477,447	88,321
1878	527,492	451,401	47,192	216,685	183,802	348,657	56,360
1879	474,821	418,554	52,178	215,928	147,029	477,762	17,840
1880	665,096	587,718	87,559	299,796	197,121	659,991	14,529
1881	606,632	550,063	101,227	261,847	180,019	731,866	15,776
1882	664,668	610,543	119,037	291,827	194,261	751,104	20,159
1883	753,589	691,244	131,371	334,623	217,390	791,774	37,975

dency is next shown.[5] The results of birth and death registration in the entire Presidency among the country and town population from the time of its introduction, and the principal causes of mortality, are given in the two subjoined statements.[6] In the absence of any abnormal causes giving rise to undue mortality, it is believed that, under ordinary circumstances, registration of births and deaths is defective

[4] SANITARY STATISTICS—MUNICIPALITIES.

—	1880-81.		1881-82.		1882-83.		1883-84.	
	Amount sanctioned.	Amount expended.	Amount sanctioned.	Amount expended.	Amount sanctioned.	Amount expended.	Amount sanctioned.	Amount expended in nine months ending with December 1883.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
For conservancy	3,17,369	3,02,887	3,30,919	3,06,636	3,45,705	3,28,870	3,63,476	2,65,022
For improvement of town-sites ...	23,696	28,077	40,878	43,801	37,982	30,994	44,656	33,689
For water-supply, cleansing, repairing, and construction of tanks and wells	24,487	20,760	24,115	23,005	31,377	23,693	45,613	32,383
For sanitary arrangements during fairs and festivals	3,086	2,816	3,114	2,382	3,035	3,469	3,010	2,029
For construction and repair of markets and slaughter-houses ...	16,071	12,037	15,886	20,226	13,645	13,678	24,688	11,388
For other sanitary objects ...	46,869	43,707	57,741	34,633	63,792	46,448	89,756	49,317
Total ...	4,31,578	4,10,284	4,72,653	4,30,683	4,95,536	4,47,152	5,71,199	3,93,828

[5] SANITARY STATISTICS—LOCAL FUND CIRCLES.

—	1880-81.		1881-82.		1882-83.		1883-84.	
	Amount sanctioned.	Amount expended.	Amount sanctioned.	Amount expended.	Amount sanctioned.	Amount expended.	Amount sanctioned.	Amount expended in nine months ending with December 1883.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
For conservancy	1,73,788	1,40,075	1,74,109	1,52,967	1,81,791	1,60,678	1,63,006	1,15,864
For improvement of village-sites ...	31,668	21,075	42,640	14,379	30,941	24,950	40,030	12,228
For water-supply, cleansing, repairing, and construction of tanks and wells	1,26,399	77,461	1,08,499	85,002	1,23,943	75,980	84,581	47,545
For sanitary arrangements during fairs and festivals	8,703	7,888	9,809	8,418	10,971	7,843	10,971	4,749
For construction and repair of markets and slaughter-houses ...	32,367	17,860	94,495	72,623	62,570	34,656	58,068	3,961
For other sanitary objects	47,183	31,425	48,906	37,126	27,044	45,414	43,016	31,479
Total ...	4,20,108	2,95,784	4,78,458	3,70,515	4,37,260	3,49,521	3,99,672	2,15,826

[6] DEATH AND BIRTH REGISTRATION STATISTICS.

Districts.

Years.	Population for which returns were received.	Total deaths.	Total births.	Ratio of deaths per 1,000 of population.	Ratio of births per 1,000 of population.	Cause of death.					
						Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	All other causes.
1866 ...	22,294,694	600,106	...	26·9	...	200,961	23,106	110,102	...	9,047	256,850
1867 ...	22,347,713	372,026	...	16·6	...	33,205	27,907	112,511	...	8,613	189,790
1868 ...	25,017,323	390,959	...	15·6	...	8,036	34,330	105,692	...	9,242	233,699
1869 ...	24,633,127	451,981	452,410	18·3	18·5	21,034	17,448	132,346	...	9,310	271,843
1870 ...	24,125,526	451,020	439,063	18·6	18·1	55,867	11,252	151,027	...	12,325	220,549
1871 ...	24,555,046	444,371	517,109	18·0	21·0	17,656	20,823	192,469	38,928	15,323	159,172
1872 ...	30,147,779	501,482	554,379	16·6	18·3	13,247	39,074	214,148	39,387	15,150	180,476
1873 ...	30,287,842	506,894	538,123	16·4	17·7	840	51,784	222,843	36,392	14,251	180,784
1874 ...	30,360,221	516,848	580,709	17·0	19·1	313	48,343	226,220	37,993	13,065	190,914
1875 ...	30,278,903	641,260	638,771	21·1	21·1	94,546	24,775	252,042	37,484	12,421	219,992
1876 ...	29,157,056	680,384	632,113	23·3	21·6	148,193	23,469	230,092	38,176	11,175	229,279
1877 ...	29,209,542	1,556,312	477,447	53·2	16·3	357,430	88,321	469,241	133,366	16,460	491,494
1878 ...	29,127,205	810,921	348,657	27·8	11·9	47,167	56,360	374,443	48,083	15,207	269,861
1879 ...	28,991,267	549,390	477,762	18·9	16·4	13,296	17,840	285,477	23,218	12,619	196,940
1880 ...	28,778,097	454,101	659,991	15·7	22·9	613	14,529	209,940	19,622	10,845	198,552
1881 ...	28,676,375	465,682	731,866	16·2	25·5	9,446	15,776	203,542	18,961	11,527	206,430
1882 ...	28,887,111	470,700	751,104	16·2	26·0	23,604	20,159	188,561	19,958	11,611	206,807
1883 ...	28,503,100	541,930	791,774	19·0	27·7	36,284	37,975	203,786	22,098	11,509	230,278

when the results in the case of births fall below 2·5 per cent. of the population, and of deaths below 2 per cent. The English birth-rate is understood to be about 3·5 and the French 2·6 per cent.; the corresponding death-rates being 2·2 and 2·3 per cent., respectively.

CHEMICAL EXAMINER.

720. Description of the Department.—The appointment of Chemical Examiner was instituted in 1857, when the Presidency Assay Master for the time being was appointed Chemical Examiner, without prejudice to his appointment as Assay Master. The first object of the department is to conduct the analyses required by the Courts in cases of suspected murder by poison at a central office, where appliances and skilled labour can be obtained. In addition to these analyses, examinations of various substances for the purposes of different departments are made at their instance. A code of rules relative to the mode of sending up articles for analysis in criminal cases was issued by Government in 1883, and there has since been an increase in the percentage of detections. The proportion of human cases in which poison was detected was 57·2 per cent. in 1883 against 45·4 per cent. in the previous year. In these rules it is directed that the order of a Magistrate, or Superintendent of Police, or Assistant Superintendent of Police, must be obtained before a Medical officer can forward any substance for examination in criminal cases, and also that Magistrates, &c., shall supply information as to the history of the case direct to the Chemical Examiner. An Assistant Chemical Examiner was appointed in 1882. The report of the Chemical Examiner or Assistant Chemical Examiner is received as evidence by the Courts in accordance with Section 510 of Chapter 41 of the Criminal Procedure Code. The statement at foot shows the number of cases of suspected poisoning, &c., sent up for examination from 1879 to 1883.[1]

Municipal Towns.

Years.	Population.	Total deaths.	Total births.	Ratio of deaths per 1,000 of population.	Ratio of births per 1,000 of population.	Cause of death. Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	All other causes.
1869 ...	1,276,223	27,436	16,993	21·4	13·3	2,048	303	6,359	...	...	18,726
1870 ...	1,335,529	29,428	18,910	22·0	14·1	3,505	586	6,913	...	399	18,025
1871 ...	1,304,711	34,841	30,035	25·1	23·0	1,447	1,484	8,403	3,971	558	18,978
1872 ...	1,571,247	41,865	36,084	26·6	22·9	716	2,660	9,762	5,221	699	22,807
1873 ...	1,561,771	42,897	40,533	27·4	25·9	47	3,913	8,660	5,389	617	24,271
1874 ...	1,588,106	45,216	47,572	28·4	29·9	30	2,265	8,874	5,749	653	27,645
1875 ...	1,607,747	52,806	45,522	32·8	28·3	7,818	1,161	9,749	5,844	579	27,655
1876 ...	1,600,044	52,564	44,281	32·8	27·6	9,430	2,086	8,576	5,608	672	26,192
1877 ...	1,604,188	110,888	43,771	31·3	28·6	19,631	11,592	14,049	30,020	1,667	33,929
1878 ...	1,620,480	62,428	41,133	38·5	25·3	3,794	2,908	14,435	13,195	1,011	27,085
1879 ...	1,620,480	43,305	45,079	29·8	27·8	672	2,091	13,182	6,785	715	24,860
1880 ...	1,613,750	43,051	50,537	26·6	31·3	36	1,892	11,298	5,756	525	23,544
1881 ...	1,613,750	45,373	53,071	28·1	32·8	1,931	2,349	11,274	4,920	504	24,395
1882 ...	1,613,750	45,296	53,450	28·0	33·1	3,512	2,392	9,947	5,076	585	23,784
1883 ...	1,729,818	51,994	54,238	30·0	31·3	4,878	4,555	10,366	5,909	570	25,716

[1] Number of Chemico-legal and Miscellaneous Examinations in the last five years.

—	Number of cases. 1879-80.	1880-81.	1881-82.	1882-83.	1883.
Human cases ... Suspected poisoning	182	159	211	207	173
Human cases ... Do. blood stains, &c.	12	24	29	20	32
Cattle do. ... Do. poisoning	144	100	77	86	79
Miscellaneous examinations. Government departments and private parties	311	295	383	506	548
Total ...	649	578	700	819	832

CHAPTER VII.

ARTS AND SCIENCES.

MADRAS OBSERVATORY.

721. NATURE OF THE INSTITUTION.—The Madras Observatory [1] gives Madras or uniform time to the greater part of India for railway and other purposes. Its longitude, as that of the secondary meridian or substitute for the prime meridian of Greenwich Observatory, is the fixed point of departure of the Trigonometrical Survey of India. The pursuits carried out at the observatory may be briefly specified as follows. A catalogue of about 5,300 fixed stars, selected as requiring special observation and based upon over 50,000 observations made with the Transit Circle of Messrs. Troughton and Simms of London, has just been finally completed. Other pursuits are or have been till recently the discovery of new planets; observations of minor planets and comets, especially when such are invisible to European astronomers; researches upon the variable stars, several new ones having been discovered; the usual attention to all casual phenomena, such as eclipses, transits, occultations, phenomena of Jupiter's satellites, &c.; and an investigation of the Solar Parallax by means of observations of the planet Mars. This last was effected at eight oppositions between the years 1862 and 1879. The chief labour at present is an atlas of all known telescopic variable stars, involving the determination of approximate positions of over 60,000 stars, and the construction of nearly 200 maps,

[1] SKETCH HISTORY OF THE MADRAS OBSERVATORY.—The Madras Observatory was instituted in the year 1792, Sir Charles Oakely being then Governor of Fort St. George, and Mr. John Goldingham the first astronomer. It originated from a small private observatory, started in 1787 by Mr. William Petrie, a scientific member of the Government, who upon leaving India presented his instruments to Government for the use of the new observatory. The principal of these, a small transit instrument by Stancliffe, is still preserved. Mr. Goldingham held office for thirty-eight years. A long series of meridional observations of the brighter stars was accumulated during this period, and two folio volumes, numbered III and IV, were published, containing the observations made between the years 1812 and 1825; leaving Volumes I and II with the observations from 1793 to 1811 for future consideration, the time for which however did not arrive. Other labors of Mr. Goldingham were investigations upon the length of the seconds pendulum at Madras and at upwards of thirty stations round Sumatra and close to the Equator; determinations of the geographical positions of Calcutta, Coringa, Masulipatam, Tranquebar, Point De Galle, Bombay and Canton; determination of the longitude of Madras by a number of observations of Jupiter's satellites; experiments upon the velocity of sound by means of the Fort and Mount guns; and a meteorological register commenced in the year 1796. Besides his duties as an Astronomer, Mr. Goldingham performed also those of Government Architect, the present Banqueting Hall being one of his labors about the year 1800. He died at Worcester in February 1849. The second Astronomer, Mr. Thomas Glanville Taylor, had charge of the observatory from 15th September 1830 to the commencement of the year 1848. Furnished with much superior instruments he completed a general catalogue of 11,015 fixed stars, which renders his name familiar in astronomical annals. Other casual observations of eclipses, comets, and minor phenomena also marked this period. Mr. Taylor's published results, all in quarto size, consisted of seven volumes of astronomical observations; one of Madras hourly meteorological observations; one of Singapore hourly meteorological observations, and one of Singapore hourly magnetical observations; all three for the years 1841 to 1845. The next decade in the history of the observatory, viz., from 1849 to 1859, was under the direction of Captain W. S. Jacob, of the Bombay Engineers; and was distinguished by the introduction of new investigations of a scientific nature, rendered possible with extra meridional instruments, then for the first time obtained. With an equatoreal constructed by Messrs. Lerebours and Secretan, he made numerous measurements of double stars and of the satellites of Saturn and Jupiter, publishing the results partly in an eighth quarto volume of Madras astronomical observations, and the rest in Vol. XXVIII of the "Memoirs of the Royal Astronomical Society." A second volume of Madras hourly meteorological observations, and one of Madras hourly magnetical observations; each for the years 1846 to 1850; as well as one of very imperfect hourly meteorological observations, made at Dodabetta, the highest point of the Neilgherry hills, between 1847 and 1855 were also printed under Captain Jacob's direction. The observatory was in charge of Major J. F. Tennant, R.E., in portions of 1859 and 1860. A still unpublished promiscuous star catalogue was made by Major W. K. Worster, R.A., while acting before and after this time in the appointment. Since 1861 the observatory has been in the hands of the present Government Astronomer. A new transit circle, and a larger equatoreal, both by Messrs. Troughton and Simms, and several other new and improved minor appliances, have been obtained. Most of the results of subsequent years have yet to be made public. Those already issued are:—Madras hourly meteorological observations for the years 1851 to 1855; Madras hourly magnetical observations for the same years—both quarto volumes—a pamphlet report upon the total eclipse of the sun on August 18th, 1868, as observed at Masulipatam, Vanapurty, Madras and other stations in Southern India; and recently, a small quarto volume, "Telegraphic Determinations of the difference of longitude between Kurrachee, Avanashy, Roorkee, Pondicherry, Colombo, Jaffna, and Singapore, and the Government Observatory at Madras, made between 1870 and 1875."—Discoveries; some observations of immediate interest and occasional papers have also been communicated to the "Astronomische Nachrichten"; the "Monthly Notices of the Royal Astronomical Society" and other periodicals.

for the epoch 1900. An account is given in the next foot-note [2] of discoveries made by the present Astronomer from the period of his taking charge of the observatory to the present date. The next note [3] shows in detail the works at

[2] SKETCH ACCOUNT OF PLANETARY, COMETARY AND STELLAR DISCOVERIES MADE BY THE PRESENT ASTRONOMER AT MADRAS—*Minor Planets between the Orbits of Mars and Jupiter.*—Six of these have been discovered down to the present date, as shown in the following table, Mr. Pogson having found four minor planets previously at Oxford :—

Name.	Date of discovery.	Period of revolution. Y. M. D.
Asia	1861, April 17	3 9 5
Freia	1864, February 2	6 3 23
Sappho	1864, May 3	3 5 22
Sylvia	1866, May 16	6 6 0
Camilla	1868, November 17	6 6 7
Vera	1885, February 6	5 4 24

Asia was so named on account of its being the first astronomical discovery made in that quarter of the globe. Freia was first discovered by Professor D'Arrest, at Copenhagen, 1862, October 21st; but was lost owing to insufficient observations having been secured to render the calculation of its orbit definite. It was rediscovered independently at Madras. (2) *Comet—either Biela's or a new one.*—A bright telescopic comet was found at Madras, 1872, December 2nd. It remains a disputed point whether this was a rediscovery of the lost periodical comet of Biela or whether the comet was a new one. Cloudy weather prevented it from being observed on more than two nights and hence the uncertainty; but it is now generally supposed to have been a new comet. (3) *New Variable and Temporary Stars.*—Eight of these have been discovered down to the present date, as shown in the following table :—

Name.	Date of discovery	Limits of magnitude.	Period of variation.
Y Virginis	1862	10th to Invisibility	Unknown.
U Scorpii	1863	9th to do.	Temporary.
U Ophiuchi	1863	9th to 11th	Unknown.
T Sagittarii	1863	8th to Invisibility	381 days.
W Cancri	1864	11th to do.	Unknown.
Z Virginis	1865	10th to do.	Do.
X Capricorni	1865	10th to do.	Do.
R Centauri	1877	8th to 13th	Do.

[3] LIST OF WORKS AWAITING PUBLICATION AT THE MADRAS OBSERVATORY—*Madras Astronomical Observations, in eleven volumes; with the Transit Instrument and Mural Circle prior to* 1860, *and with the Meridian Circle from* 1862 *to* 1884.—"a." A quarto volume of about 300 pages, containing observations made under the successive superintendence of Mr. T. G. Taylor; Captain W. S. Jacob, Bombay Engineers; and Major W. K. Worster, Madras Artillery, all prior to 1860. These observations comprise 1,331 of the sun, 345 of the moon, 1,680 of the principal planets, 333 of minor planets, and 25 of Donati's comet of 1858; also a long list of occultations of planets and stars and of the eclipses of Jupiter's satellites. "b." Separate results of observations made with the transit instrument and the mural circle in 1853, 1854, 1855 and 1856, with the deduced catalogues for each year. "c." Separate results of observations made with the transit instrument and the mural circle in 1857, 1858 and 1859, with the deduced catalogues for each year. "d." Separate results of 5,761 observations made with the new meridian circle in 1862, 1863 and 1864, with the deduced catalogues for each year. "e." Separate results of 7,651 observations made with the meridian circle in 1865, 1866 and 1867, with the deduced catalogues for each year. "f." Separate results of 5,867 observations made with the meridian circle in 1868, 1869 and 1870, with the deduced catalogues for each year. "g." Separate results of 5,603 observations made with the meridian circle in 1871, 1872 and 1873, with the deduced catalogues for each year. "h." Separate results of 4,639 observations made with the meridian circle in 1874, 1875 and 1876, with the deduced catalogues for each year. "i." Separate results of 9,637 observations made with the meridian circle in 1877, 1878 and 1879, with the deduced catalogues for each year. "j." Separate results of 5,817 observations made with the meridian circle in 1880 and 1881 with the deduced catalogues for each year. "k." Separate results of 6,747 observations made with the meridian circle in 1882, 1883 and 1884 with the deduced catalogues for each year. In the publication of these volumes, it is not intended to print the actual details of observations, as still given in the volumes of the Greenwich, Edinburgh, Washington and other national observatories. In consideration however of the impossibility of preserving original records for a number of years in India, it will be desirable that carefully compared manuscript copies of the complete reductions should be deposited at the India Office, at the Royal Observatory, or with the Royal Astronomical Society, available for future references, should the necessity for such arise. (2) *Final Star Catalogues.*—"a." Catalogue of about 2,200 stars for the epoch 1855, from observations made with the transit instrument and mural circle, between the years 1853 and 1858; under the superintendence of Captain W. S. Jacob, Bombay Engineers, and Major W. K. Worster, Madras Artillery. "b." Catalogue of 5,290 stars for the epoch 1875, from observations made with the meridian circle, between the years 1862 and 1884; under the superintendence of Mr. N. R. Pogson. "c." Catalogues to accompany the Variable Star Atlas, containing approximate positions of upwards of sixty thousand stars, observed entirely by Mr. Pogson and reduced to the epoch 1900, at Madras, since 1861. (3) *Subsidiary Volumes and Pamphlets.*—"a." Observations of minor planets, comets and new variable stars and nebulæ: furnishing 989 positions of 73 minor planets at 260 oppositions; 75 of 10 comets; those of such variable stars as are not observable with the meridian circle; and of two new nebulæ, in Ara and Phœnix, discovered by the Assistant Astronomer, Miss Pogson, in 1876 and 1881. "b." Transit of Mercury, November 12, 1861; transit of Venus, December 8, 1874; six eclipses of the sun; seven eclipses of the moon; five occultations of planets; numerous star occultations between 1862 and 1880. Phenomena of Jupiter's satellites on 193 occasions between 1862 and 1880; measures of α Centauri, γ Virginis and a few other double stars; spectroscopic measures of γ Argûs. "c." Light comparisons of telescopic variable stars on about 2,200 occasions, between the years 1861 and 1881. "d." Determination of the Constant of Solar Parallax, by means of 212 differential measurements of the planet Mars, in right ascension, from adjacent comparison stars; made with the equatoreals on 104 evenings near the rising and 108 mornings near the setting of the planet at its eight oppositions in the years 1862, 1864, 1869, 1871, 1873, 1875, 1877, and 1879. (4) *Variable Star Atlas and other Star Charts.*—"a." An atlas of variable stars containing maps of the vicinity of each known telescopic variable, which, at its minimum, becomes invisible to the naked eye. These maps, about 200 in number, are each eighty minutes wide in Polar Distance and nearly square, on a scale of three inches to a degree, and will contain all stars easily visible with a telescope eight inches in aperture. The magnitudes of a certain number of comparison stars, adjacent to the variable near the middle of each map, will be given, on a photometric scale in which the logarithmic light ratio is 0·4 and the limit of vision or of extinction, for an object glass exactly one inch in aperture, is 9·2 magnitude. The limit or extinction point for any other aperture is given by the formula—Magnitude = 9·2 + 5 (logarithm of aperture in inches). It is estimated that these maps, when completed, will contain upwards of sixty

the observatory which await publication. Magnetical and meteorological observations are still continued at the observatory, but upon a reduced scale, consisting of three observations per day, instead of hourly, as before 1861.

METEOROLOGY.

722. INTRODUCTION.—A general account of the meteorological characteristics of the Presidency will be found in Vol. II, Appendix II. The figures opposite certain stations in Vol. II, Appendix LXVI, show in one view the rainfall of the Presidency. A map showing the same is excluded from this place by the exigencies of publication, but will be found in the collection of maps given with Volume III. The statistics at foot [1] give the mean average monthly rainfall in each revenue district taken as a whole for the four years from 1881 to 1884. The stations selected in this table are those to which rain-gauges have been supplied by the Government Astronomer, capable of furnishing returns not more than half an inch in error in each hundred inches of rainfall. The total number of stations taken is 225 in 1881, 222 in 1882, 221 in 1883, and 218 in 1884; average 225 stations. The figures under 'rain' indicate inches, with two places of decimals. The inches imply that a horizontal impermeable surface of the extent of the horizontal section at top of the funnel-shaped rain-gauge would be to that extent under water if all the rain falling upon it within the month were there retained. What is true of the small surface indicated by the rain-gauge is assumed to be true of the general area of the surrounding country. The decimal figures under 'days' are for

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thousand stars and each map will be supplemented by a catalogue of approximate positions of the objects it contains, reduced to the epoch 1900. The epoch 1860 was at first adopted when the work was commenced at Oxford in 1853, but it has now been found desirable to reconstruct the maps and bring up all the star places to a future instead of a past epoch. The atlas of variable stars is the work of one individual throughout, and the zone observations and magnitude determinations can only be carried on satisfactorily when the moon is absent, the sky quite free from haze, and when official duties give sufficient leisure. "b." Eighteen star charts, chiefly constructed at Oxford, but since continued at Madras. Twelve of these maps connect Mr. Bishop's Ecliptical Charts, constructed by Mr. J. R. Hind at the South Villa Observatory, and those published by the Berlin Academy, the work of various European astronomers. The other six are maps of portions of the zodiacal heavens made on various occasions for special planetary searches. Most of the new planets and variable stars discovered by Mr. Pogson were found in the course of construction of these maps. (5) *Madras Magnetical and Meteorological Observations.*—"a." Quarto—hourly magnetical observations made at the Honorable East India Company's Magnetical Observatory at Madras, between the years 1841 and 1845, under the superintendence of Captain S. C. E. Ludlow, Madras Engineers. The observations made between the years 1846 and 1850 were published in 1854, and those between the years 1851 and 1855 have been since printed and distributed. "b." Quarto—hourly magnetical observations made at the Madras Observatory between the years 1856 and 1860, under the superintendence of Majors W. S. Jacob, Bombay Engineers, W. K. Worster, Madras Artillery, and J. F. Tennant, Bengal Engineers. "c." Quarto—hourly meteorological observations made at the Madras Observatory between the years 1856 and 1860, under the superintendence of Majors W. S. Jacob, Bombay Engineers, W. K. Worster, Madras Artillery, and J. F. Tennant, Bengal Engineers. "d." Meteorological and magnetical observations made at the Madras Observatory since the year 1861, under the superintendence of Mr. Pogson. "e." Results of meteorological observations made at Bangalore, Bellary, Cochin, Coimbatore, Kurnool, Masulipatam, Negapatam, Salem, Secunderabad, Trichinopoly and Wellington between the years 1868 and 1880, under the superintendence of Mr. Pogson.

[1] RAINFALL THROUGHOUT THE PRESIDENCY BY DISTRICTS FOR THE FOUR YEARS 1881 TO 1884.

Districts.	Stations.	January.		February.		March.		April.		May.		June.		July.	
		Ins.	Days.	Ins.	Days.	Ins.	Dys.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.
Anantapore ..	7	0·15	0·5	..	..	0·15	0·4	0·32	0·8	1·18	2·9	1·43	3·4	0·85	3·2
Arcot, North ..	17	0·47	0·8	0·01	0·0	0·04	0·2	0·32	0·6	1·70	3·6	2·49	4·3	2·03	4·8
Arcot, South ..	8	0·94	1·7	0·01	0·1	0·01	0·1	0·21	0·4	1·44	2·3	1·48	3·8	1·78	4·3
Bellary ..	8	0·21	0·4	..	..	0·22	0·7	0·53	1·6	1·81	3·8	1·57	5·0	1·74	7·1
Canara, South..	5	0·31	0·8	..	..	0·04	0·4	0·90	2·4	4·91	7·8	28·61	26·2	37·98	29·3
Chingleput ..	7	0·89	1·3	..	..	..	..	0·19	0·4	0·45	1·0	1·65	3·4	2·84	6·3
Coimbatore ..	10	0·42	0·9	..	..	0·36	1·2	0·82	1·9	4·06	7·7	3·10	4·3	1·32	4·8
Cuddapah ..	11	0·14	0·3	0·01	0·0	0·15	0·2	0·60	1·0	1·29	2·5	2·72	5·0	0·97	3·4
Ganjam ..	16	0·12	0·3	0·27	0·7	0·79	1·7	0·96	2·7	2·01	4·5	6·40	9·3	7·68	12·7
Godavery ..	20	0·16	0·2	0·09	0·2	0·16	0·3	0·30	0·5	0·82	1·3	4·03	5·8	4·25	7·1
Kistna ..	11	0·19	0·4	0·02	0·1	0·32	0·5	0·29	0·6	1·08	2·1	4·24	7·3	3·94	9·1
Kurnool ..	9	0·10	0·3	..	..	0·32	0·4	0·30	0·9	0·86	2·1	3·09	5·6	2·60	7·5
Madura ..	13	0·79	1·8	0·78	0·6	0·30	0·8	0·85	1·7	2·91	4·2	0·75	2·1	0·57	1·5
Malabar ..	15	0·37	0·7	0·01	0·1	0·74	1·5	1·91	4·5	7·76	10·0	24·66	23·5	31·90	26·8
Nellore ..	17	0·57	0·9	..	..	0·08	0·2	0·29	0·3	0·46	0·9	2·00	3·7	1·27	3·7
Salem ..	10	0·28	0·8	..	..	0·46	0·8	0·80	1·5	4·71	7·5	1·73	3·8	1·87	4·5
Tanjore ..	10	1·27	2·8	0·12	0·4	0·03	0·1	0·14	0·3	1·54	2·5	1·78	3·1	0·81	2·0
Tinnevelly ..	11	1·14	2·5	1·08	1·2	1·35	2·0	1·05	2·0	2·25	2·9	1·15	2·4	0·91	2·5
Trichinopoly ..	5	0·70	1·4	..	..	0·12	0·3	0·43	0·6	3·89	5·5	1·20	1·9	0·66	1·4
Vizagapatam ..	15	0·15	0·3	0·11	0·2	0·69	1·3	0·82	1·6	2·04	3·9	4·59	7·6	5·02	10·2
Average of the 20 districts ..	225	0·47	1·0	0·13	0·2	0·32	0·7	0·60	1·3	2·36	0·39	4·93	6·6	5·55	7·6

quarter-days, and the total figure under that column indicates the number of quarter-days or periods of 6 hours during which rain fell during the whole month. Thus 1·25 indicates that rain fell on 5 quarter-days during the month. The gauges used in this Presidency are those known as Symons's. They are tested by the Government Astronomer. The test is applied to the size of funnel of the gauge and contents of glass measure into which the accumulated water is poured by the observer, so that the uncertainty may be within 0·005 per inch of rainfall. For converting into 'inches' the contents of any ordinary measure not graduated for that special purpose, it may be noted that with a circular funnel of which the upper horizontal segment is 14·854 inches in diameter, 100 fluid ounces of water represent one inch-depth of rain. If the contents of the measure are known in cubic inches only, a cubic inch divided by 1·733 is equal to one fluid ounce. The following principles are generally maintained in the management of rain-gauges. They are placed on level ground, and the receiving surface is fixed so as to be completely level. Exposure to wind is avoided. They are placed at least as many feet from trees, buildings, &c., as these are high. In the rare case of the occurrence of snow, one-twelfth of the average depth is counted as rain. Hail is allowed to melt in the funnel, and the water is measured as rain. The water condensing from dew and fog is measured as rain, where it is measurable. The next [2] table shows

Districts.	Stations.	August.		September.		October.		November.		December.		Annual.	
		Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.	Ins.	Days.
Anantapore ..	7	4·35	7·8	2·86	5·5	3·57	6·9	2·77	5·7	0·24	0·9	17·87	38·0
Arcot, North ..	17	7·00	9·8	5·04	6·3	7·33	8·1	11·85	10·1	4·27	3·5	42·55	52·1
Arcot, South ..	8	5·66	8·6	4·47	6·8	8·59	8·6	12·80	12·2	7·37	5·9	44·76	54·8
Bellary ..	8	4·27	9·0	2·86	6·4	3·68	7·0	1·96	3·5	0·13	0·4	18·98	44·9
Canara, South..	5	28·51	26·3	12·51	21·2	7·35	12·5	3·44	7·1	0·25	0·8	124·81	134·8
Chingleput ..	7	5·06	8·6	4·34	6·4	9·57	9·5	18·57	12·9	6·53	5·4	50·11	55·2
Coimbatore ..	10	3·02	6·7	3·27	3·6	7·33	10·5	5·53	10·2	1·71	3·6	30·94	55·4
Cuddapah ..	11	5·07	8·2	4·32	6·4	6·34	7·6	6·74	6·7	1·48	1·7	29·80	43·0
Ganjam ..	16	7·36	12·7	7·95	12·4	6·08	6·5	1·89	2·6	0·59	1·1	42·10	67·2
Godavery ..	20	5·36	7·3	8·88	9·1	4·71	5·0	4·07	3·2	0·63	0·4	33·46	40·4
Kistna ..	11	5·29	9·8	7·00	10·6	5·04	7·3	5·62	4·6	0·78	0·7	33·81	53·1
Kurnool ..	9	4·77	9·7	4·55	8·7	4·44	7·3	2·78	4·5	0·26	0·6	24·07	47·6
Madura ..	13	2·32	4·8	1·72	3·6	7·63	10·5	6·83	11·4	4·56	7·1	30·01	50·1
Malabar ..	15	19·95	22·7	8·40	16·5	8·89	13·3	6·55	10·2	0·58	1·6	111·72	131·4
Nellore ..	17	2·65	4·9	2·61	5·2	9·97	8·1	12·73	8·6	2·70	2·6	35·33	39·1
Salem	10	7·47	9·6	3·64	5·6	6·29	8·5	6·82	9·6	2·25	2·9	36·32	55·1
Tanjore ..	10	4·35	6·9	3·50	5·7	8·83	10·1	13·23	13·8	10·90	12·0	46·50	59·7
Tinnevelly ..	11	0·95	2·4	0·51	1·2	5·93	9·2	8·95	10·6	4·53	6·6	29·80	45·5
Trichinopoly ..	5	4·17	6·6	3·27	4·9	7·15	10·2	7·99	11·9	4·47	5·6	34·05	50·3
Vizagapatam ..	15	7·47	11·6	7·98	11·9	5·19	5·9	3·19	3·4	0·64	0·9	37·89	58·8
Average of the 20 districts ..	225	6·75	9·7	4·98	7·9	6·70	8·6	7·22	8·1	2·74	3·2	42·75	58·8

[2] THERMAL STATISTICS FOR VARIOUS STATIONS.

Stations.	Dec., Jan., Feb.	Mar., Apl., May.	June, July, Aug.	Sep., Oct., Nov.	Yearly mean.	Stations.	Dec., Jan., Feb.	Mar., Apl., May.	June, July, Aug.	Sep., Oct., Nov.	Yearly mean.
Arcot	74	85	87	81	82	Manantoddy	62	71	68	68	67
Arnee	59	79	90	76	76	Masulipatam ...	79	87	88	81	84
Bangalore	73	80	74	73	75	Mercara	70	76	68	72	72
Bellary	75	86	81	78	80	Nellore	76	84	88	82	83
Calicut	81	85	79	80	81	Ootacamund	52	59	57	55	56
Cannanore	80	84	79	80	81	Palamcottah ...	79	86	85	83	83
Caricaul	77	85	86	82	83	Pondicherry	82	85	86	85	85
Chittore	76	87	85	79	82	Poonamallee	79	82	84	80	81
Cochin	80	84	78	80	81	Rajahmundry ...	76	86	84	82	82
Cocanada	76	85	84	79	81	Rámandroog	71	78	71	71	73
Coimbatore	73	81	77	75	77	Salem	77	84	82	80	81
Coonoor	61	68	68	68	66	Samalcottah	71	83	79	73	77
Cuddalore	78	85	85	82	83	Shevaroy Hills ...	65	70	68	66	67
Cuddapah	76	89	86	81	83	St. Thomas' Mount ...	80	87	89	84	85
Dodabetta	51	57	53	52	53	Tinnevelly	81	87	86	84	85
Goontoor	77	85	84	82	82	Trichinopoly ...	82	88	86	83	85
Kotagherry	59	62	65	61	62	Trincomalee	80	85	86	84	84
Kurnool	79	90	84	81	84	Trivandrum	79	82	78	78	79
Madras	77	84	86	81	82	Vizagapatam ...	75	88	86	83	83
Madura	80	88	87	84	85	Wellington	66	67	69	67	67
Mangalore	81	85	78	80	81						

thermal statistics for principal separate stations in and connected with the Presidency as observed on a recent average. The figures indicate the degrees of the thermometer registered as a mean temperature of the air in the shade night and day for the whole period of the quarter-years and years respectively. The thermometer used in India is on the Fahrenheit scale, according to which the temperature of melting ice is 32°, and that of the steam of water boiling under barometrical pressure of 30 inches is 212°. The thermometers (dry-bulb) are so placed that they are always in shade and unexposed to direct insolation, and that they are free from influence by radiation from walls and other objects. The bulbs, freely exposed to the air, are placed about 4 feet from the ground. The thermometers are usually suspended from a slight wooden frame standing in a shed with double-sloping thatched roof, open completely at the ends and at the lower part of the sides, with no trees or buildings close by. The shade maximum thermometer is mercurial. By a contraction in the stem, it is arranged that the highest portion of the column shall remain fixed at its extreme point, the remainder falling down as chilled. Continuity is afterwards restored by tapping or shaking the instrument. The thermometer is placed nearly horizontally, with the bulb somewhat lowered. The shade minimum thermometer is alcoholic. It is inclined like the maximum thermometer, and a steel index within sinks with the liquid to the lowest point, but the liquid has not the force to raise it on the return action. The index is replaced by the observer with the use of a magnet. Mean temperature is the mid-point of the range, or the arithmetical mean between the two registered extremes. Where hourly observations are possible, the mean is obtained by adding together the degrees to one place of decimals noted hourly, and dividing the sum by 24. An approximate method is also to add together the minimum noted temperature and the degrees observed at two or three fixed hours in the day, and divide the sum by 4. The hours of observation at principal observatories are 10 a.m., 4 p.m., and 10 p.m. A closer approximate method is to record the maximum, the minimum, and two other observations taken at any hour of the day or night; to take from a reduction table which has been specially constructed at the Madras Observatory certain factors answering to these 4 figures; to multiply the range by the mean of the 4 factors; and to multiply by such ultimate factor the mean of the 4 original observations. The result gives a true mean temperature for the day. The reduction table above mentioned varies for the season. The maximum temperature of the day on land occurs between 1 p.m. and 2 p.m., or after the culmination of the sun; the minimum between 5 a.m. and 6 p.m., or immediately before sunrise. The next foot-note [3] gives a sketch of the origin and progress of meteorological operations in Southern India.

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[3] SKETCH HISTORY OF METEOROLOGICAL OPERATIONS IN SOUTHERN INDIA.—*Observations by Medical Officers.*—The first meteorological observations in this country were made by medical officers at stations and hospitals, these officers being expected to keep journals of such observations from a very early period; but much of this early material is lost. (2) *Observations by Meteorological Department.*—A complete series of observations has been registered at the Madras Astronomical Observatory since 1796 by the different astronomers in charge. In 1819 the hours of observation were sunrise, noon, 2 p.m., sunset, and 9 p.m., and the entries were the readings of the thermometers, rain-gauge, wind, and weather. From 1837 the hours of observation were 10 a.m, 4 p.m., and 10 p.m. Hourly observations were taken from March 1841 to February 1861, when the series was considered complete, and discontinued as no longer necessary. Since 1861 observations have been registered thrice daily, and were published weekly in the 'Fort St. George Gazette,' until recently as mentioned in the text. In 1846 the Court of Directors gave orders that a series of meteorological observations should be taken at a considerable height above the level of the sea, on the Neilgherry Hills. A building was accordingly erected on the summit of the peak of Dodabetta, 8,640 feet above the sea, and instruments were there fixed in January 1847, under the charge of John deCruz, an assistant at the Madras Observatory. The hours of observation were 9-40 a.m. and 3-40 p.m., the supposed hours of barometrical maxima and minima on the 21st and 22nd of each month, horary observations were taken for 24 consecutive hours. This experiment eventually proved a failure from various causes. The observations of atmospheric pressure and rainfall, though not accurate, were moderately good, but the thermometric observations were inferior. In consequence of the unsatisfactory results obtained, this station was abolished by Sir Charles Trevelyan in 1858. The observatory at Trivandrum, which owed its origin chiefly to the interest taken in the matter by the late Rajah of Travancore, was established in 1836, on a hill 190 feet above the sea, the first astronomer being Mr. John Caldecott. General Cullen also had observations taken to ascertain the rainfall, from 1842 to 1846, at Cochin, Quilon, Alleppey, Cape Comorin, and other points on the Travancore coast. The best and most extensive observations in Travancore, however, were made by Mr. John Allan Brown, who became astronomer to the Rajah of Travancore in January 1852, by whom in 1855 a branch observatory was established on the peak of Agastya, 6,200 feet above the sea. In reaching this lofty site, paths had to be cut through jungles occupied by wild elephants, and there were delays owing to labourers absconding from fear and cold. The assistants at this observatory were arranged into three sets of four men each, according to their castes, consisting respectively of Syrian Christians, Brahmins and Shoodras, and Roman Catholics; these sets relieved each other every three months. The observations were commenced on July 1st, 1855, but during Mr. Brown's absence in England in 1860 the observatory was allowed to fall to pieces. On his return in 1863 he had it rebuilt and took a second series of observations, extending over ten months. When the Travancore Government decided on abolishing the observatories in 1865, Mr. Brown obtained leave for the continuation of the limited series to be made by the two oldest and best of his native observers, and his principal assistant continued in charge, and forwarded reports to Mr. Brown in Europe. Sir John Herschel's suggestion, that horary observations should be taken for 24 hours together on four fixed days of each year,

723. Meteorological Department.—The special Meteorological Department of the Presidency, which is part of an Imperial scheme, is in charge of a Meteorological Reporter, who is under the orders of the Meteorologist to the Government of India, but is attached to this Government. The present subordinate establishment of this department consists of four assistants at Madras and nineteen assistants employed at the seventeen up-country observatories, two assistants being necessary in two cases. The table at foot[4] gives a list of the meteorological observatories of the Presidency under the special department, showing the dates on which they were instituted, with their latitudes, longitudes, and heights above sea-level. The principal Observatory at Madras is situated in the suburb of Nungumbaukum, about 3 miles from the shore. The barometer which has been in use there since the end of 1876 is a Newman's standard (No. 49) with a large tube, similar to the instruments in use at Calcutta and Bombay. For many years previously to 1877 a similar barometer, No. 42, also by Newman, had been registered. The elevation of the barometer cistern is 22 feet above sea-level. The thermometers are all corrected to the readings of a Kew standard furnished in 1861, and are exposed under a thatched shed with open gable ends. The anemograph is one on the principle of Beckley's, and was constructed by Messrs. Adie. It has been in use since 1864. Observations are recorded three times daily at the twelve original observatories, viz., at 10 a.m., 4 p.m., and 10 p.m.; and twice daily, omitting the night records, at the six third-class observatories, Amindivy, Cuddapah, Kurnool, Mangalore, Mercara and Rajahmundry. The assistants

received due attention from the Madras observers. Such observations were registered at the Madras and Trivandrum observatories in December 1836, and January 1838. In 1832 observations were taken in the hill regions of Wynaud and Coorg giving the monthly means of the barometer, thermometer, and hygrometer. In 1865, the Madras Sanitary Commissioner, Mr. Ellis, submitted a scheme for recording meteorological observations at each of the chief civil and military stations, which received the sanction of the Supreme Government. The stations are under the superintendence of the senior medical officer, and the copies of the registers are forwarded half-monthly to the astronomer at Madras, for reduction. The Secunderabad register dates from July 1863, that of Trichinopoly from July 1866. The establishment of the other meteorological stations was sanctioned in 1867. The intention was that observations should be made with properly compared instruments, and that really reliable results should be obtained. Meteorological reporters were appointed for five provinces, Madras, Bombay, Bengal, the Central Provinces, and the North-West Provinces, with assistants in the various up-country stations, in correspondence with the Meteorological Superintendents, but acting under the immediate orders of the local medical officer. The stations of the Madras Presidency were twelve in number, viz., Bangalore, Bellary, Cochin, Coimbatore, Kurnool, Madura, Masulipatam, Negapatam, Salem, Secunderabad, Trichinopoly and Wellington; and with the exception of Kurnool, which was closed in 1876, these observatories have been carried on ever since. At the end of 1874 a Meteorologist to the Government of India was appointed at the head of the whole establishment. The former local reporters were still retained, and the Madras and Bombay registers were left as before under the control of the Government Astronomers of those Presidencies. In 1875 the Meteorologist to the Government of India issued the first report on the meteorology of the whole Indian empire. He has continued to report each year since with tables from 365 stations on the following heads:—temperature of solar radiation, temperature of nocturnal radiation, air temperature, atmospheric pressure, anemometry, hygrometry, cloud proportion, and rainfall. In July 1881 the Meteorological Office in Madras was transferred, partly at the request of the Astronomer, to a separate reporter. From the 1st of January 1882 the two third-class stations at Mangalore and Mercara were placed under the Madras branch. In February 1883 Kurnool was reopened as a meteorological observatory of the third class, and two others sanctioned some time back, Cuddapah and Rajahmundry, were opened lately. It is now proposed to have an observatory, similar to those first established, recording observations three times daily, at Ootacamund. (3) *Rainfall Observations by Revenue Officers.*—A system of registering the rainfall in each district was introduced under orders of the Madras Board of Revenue in March 1852. The registration was confined to the huzoor and talook headquarter stations. From these returns a general statement for the whole district was prepared by each Collector and submitted to the Board of Revenue before the 15th of each month, for the information of Government and for quarterly publication in the Fort St. George Gazette. Subsequently the rainfall was ordered to be given in four sections for each district, viz., north, south, east, and west. The average for each section was then given instead of the actual falls. In 1862 the Board directed Collectors to furnish the Government Astronomer with a copy of the rainfall register submitted every month, and also with the past daily registers of rainfall from 1852. The Government Astronomer then suggested a new form, which was circulated for adoption. Information regarding the average rainfall for each district is available in the Revenue Board office from 1853-54. The Government Astronomer further suggested some improvements in the rain-gauges then in use, and it was decided that the duty of supplying rain-gauges should in future be entrusted to him. Existing arrangements will be seen in the text.

[4] Stations of the Madras Meteorological Department.

Name of station.	North latitude.	East longitude.	Height above sea-level.	Date of instituting observatory.	Name of station.	North latitude.	East longitude.	Height above sea-level.	Date of instituting observatory.
	° ′	° ′	FEET.			° ′	° ′	FEET.	
Amindivy ..	11 6	72 48	..	Sep. 1880	Mangalore ..	12 52	74 54	52	Mar. 1880
Bangalore ..	12 59	77 38	2,981	Nov. 1867	Masulipatam ..	16 9	81 12	10	Aug. 1868
Bellary	15 9	76 57	1,455	Dec. 1867	Mercara ..	12 26	75 48	3,695	Mar. 1880
Cochin	9 58	76 17	11	Feb. 1868	Negapatam ..	10 46	79 53	15	June 1868
Coimbatore ..	11 0	77 0	1,348	Nov. 1867	Rajahmundry ..	16 58	81 49	112	May 1884
Cuddapah ..	14 29	78 53	433	Mar. 1884	Salem	11 39	78 12	940	Nov. 1867
Kurnool	15 50	78 6	935	Feb. 1883	Secunderabad ..	17 27	78 33	1,787	Nov. 1867
Madras	13 4	80 15	22	Feb. 1796	Trichinopoly ..	10 50	78 44	275	Dec. 1867
Madura	9 55	78 10	448	Feb. 1868	Wellington ..	10 22	76 50	6,200	Mar. 1870

employed at the former stations have been instructed in their duties at the Madras Office, and reduce their own observations fit for publication; but those of the latter, being in most cases Telegraph Masters or Post Masters, record the readings at the times stated and forward weekly returns to the Madras Office for reduction there. All the observations, whether reduced or unreduced, undergo revision at the Madras Office. In December 1881 hourly observations on four days in each month were begun at the Bellary and Trichinopoly observatories. Synoptic observations, taken daily at the local time corresponding to 7 a.m. Washington mean time, for the "United States International Weather Bulletin," were at the same time begun at these two stations. All instruments for up-country are compared with the Madras standard before issue. The dry and wet bulb thermometers are tested in ice for verification of their freezing points, and compared in water with a new standard at high temperatures. The anemometers are checked prior to use by the large anemograph at the Madras Observatory; a necessary precaution as such instruments by the same maker, and apparently similar in all respects, are found to differ 25 per cent. in the recorded velocities under the same conditions of exposure. The reduced results of all meteorological observations are forwarded to the Meteorological Reporter to the Government of India, who prints them in the "Annual Report on the Meteorology of India," as also in Daily and Monthly Registers. The 10 a.m. observations from all stations are telegraphed to the Meteorological Reporter to the Government of India and incorporated in the "Revenue and Agricultural Department Daily Weather Report" published by the Government of India at Simla or Calcutta. Monthly mean and extreme results of the meteorological observations taken at each of the observatories in the Presidency were formerly printed in the Fort St. George Gazette for public information, but have been discontinued of late. It is now intended to begin publication again. The meteorological observations made at the Astronomical Observatory are communicated to the Meteorological Reporter, whose office is located in the Observatory.

724. Revenue Department.—The 318 stations at which rainfall is registered by the Revenue Department are shown in Vol. II, App. LXVI. No establishment is maintained in the districts for registering the rainfall. Rain-gauges and glass-measures are in process of being supplied through the Government Astronomer, who has already supplied 224 stations. The remainder are supplied by the Superintendent of the Public Works Workshop. Weekly reports of rainfall from the different stations are sent by Collectors direct to Government, who telegraph a summary as regards the selected districts of Ganjam, Kistna, Bellary, Kurnool, Chingleput, Tanjore, Madura, Coimbatore, and Malabar to the Government of India each Wednesday. Monthly statements, showing the daily rainfall at each station supplied with a gauge, are furnished to the Board of Revenue with the season reports. These results are tabulated and submitted to Government. A copy of the monthly statements is sent by Collectors to the Government Astronomer, who publishes the results in the Fort St. George Gazette. The statistics however thus shown by the Government Astronomer relate to only the 224 stations, to which rain-gauges have been sent through his office. Collectors also report direct to the Meteorological Reporter to the Government of India the rainfall at 65 selected stations. These stations will be found indicated in Vol. II, App. LXVI.

725. Sanitary Department.—This department publishes rainfall results in its annual report, but they are obtained from the monthly statements in the Fort St. George Gazette mentioned in the last paragraph.

GEOLOGY.

726. Introduction.—The greater part of the Madras Presidency consists geologically of old crystalline rocks belonging to the great metamorphic or gneissic system, which forms the basis on which rest all the newer formations. Except in the case of the Cuddapah and Kurnool series (the equivalents respectively of the Upper Transition and Lower Vindhyan series of Central India), the newer forma-

tions occur only as comparatively narrow fringes occupying positions parallel to the coast lines of the peninsula. The Cuddapah and Kurnool rocks however (which consist chiefly of quartzites, conglomerates, slates and limestones) cover a large area in the North Arcot, Cuddapah, Kurnool, Anantapore, Nellore and Kistna districts. The most important of the newer systems represented in the Madras Presidency are the Lower and Upper Gondwana systems, the former of which includes the Baraukar or Indian coal measure series. The Lower Gondwanas cover small areas in the Godavery district, but are not known to occur south of the Kistna river. The Upper Gondwana system is represented by patches of sandstone and shale occurring at frequent intervals down the eastern coast as far south as Trichinopoly district. These beds are most largely developed in the northern half of the Chingleput district. In Trichinopoly the Upper Gondwana beds akin to the Rajmahaul are overlaid by a series of rocks (sandstones, clays and coralline limestones) representing the Cenomanian, Turonian and Senonian groups of the cretaceous system of Western Europe. The patches of Upper Gondwana and cretaceous rocks are generally overlaid along their eastern boundaries by fringing beds of Cuddalore sandstones, and these again by the lateritic formations, which in their turn dip eastward under the recent fluviomarine coast alluvium. The Gondwana and cretaceous rocks are, as far as at present known, entirely wanting on the western coast of the peninsula, and the later formations rest there directly on the gneiss. The soils, amongst which red soils predominate, are generally formed by decomposition of the underlying rocks; the one exception to this rule being the regar or black-cotton soil, which occurs in extensive stretches in the Bellary, Anantapore, Kurnool, Kistna, Nellore, South Arcot, Madura and Tinnevelly districts. By far the greater part of the regar spreads represents the humus formed by ancient forest growths. A detailed sketch of the geology of the Presidency will be found in Vol. II, App. III.

727. GEOLOGICAL SURVEY.—The department is Imperial and not connected with this Government. A sketch history of its origin and progress is given in the first foot-note,[1] and a special account of the work done in this Presidency in the next foot-note.[2]

ARCHÆOLOGY.

728. INTRODUCTION.—The most primitive remains which come under the scope of archæology are natural caves enlarged by the hand of man, and used as dwelling places or for other purposes. A few of these have been discovered in

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[1] SKETCH HISTORY OF THE GEOLOGICAL SURVEY OF INDIA.—In 1818, when the science of geology was in its infancy, Dr. Voysey joined the Trigonometrical Survey of India as its geologist and surgeon. He explored many parts of the peninsula, from Agra south through the Deccan to the Kistna, including the valleys of the Tapty and the Godavery and the diamond mines. The survey officers and many of the officers of Indian Engineers and Artillery not on the staff of the survey, reported on the rocks, their minerals and fossils, in various districts and provinces. Of non-official explorers and observers the most able were the French naturalist, Jacquemont, especially in Reewah State, where valuable coal has lately been discovered; Stephen Hislop, missionary of the Free Church of Scotland, especially in Nagpore and the rich coal strata since worked there; and Dr. Buist, the Bombay editor and savant, whose premature death, like that of Hislop, Jacquemont, and Voysey, was a loss to science. In 1833 Mr. James Calder published in the eighteenth volume of the Asiatic Researches the first brief summary of Indian geology. Its special value lies in the correct indication at that period of the general distribution of the overlying trap in Central and Western India, and of the prevalence of granitic and gneissic formations not only in the peninsula but throughout the Himalaya. Captain Newbold from Kurnool, where he was Assistant Resident, personally investigated much of the geology of Southern India, of which from 1844 to 1850 he published a summary, still of much value as acknowledged by the professional reporters of the geological survey. With the one exception of associating the rocks of the Gondwana system with the ancient 'diamond sandstone' of transition or Vindhyan age, his observations are still regarded as correct. He arranged the sequence as follows:—The metamorphic rocks; the diamond sandstone and limestone; the cretaceous (fossiliferous) limestone of Pondicherry; the freshwater limestones and cherts intercalated with the Deccan traps; the laterite, with which the Cuddalore sandstone and marine sandstone of Ramnaud and Cape Comorin are associated; the older alluvium, including regar or black-cotton soil, and kankar or nodular limestone; the modern alluvium and sand dunes; such plutonic rocks as granite and greenstone; and the newer or overlying trap. In 1854–57 Dr. Carter published a more extensive but less valuable summary and reprint of papers on the geology of the whole of Peninsular India, and Mr. Greenough exhibited to the British Association the first Geological Map of India. The growing importance of the carboniferous formation in the Damodar valley, where coal was first worked in 1777, led to the appointment by the East India Company in 1845 of Mr. D. H. Williams as Geological Surveyor, succeeded by Dr. M'Clelland. In March 1851 Dr. Oldham, Professor of Geology at Trinity College, Dublin, first organised the regular geological survey under Lord Dalhousie, then Governor-General. In 1856 Lord Canning ordered a systematic survey by an increased staff to be carried out in districts of which the revenue and topographical surveys had completed the maps and which promised the most valuable results, economic and scientific. Notwithstanding delays due to the want of maps and to a frequently insufficient staff the results, both scientific and practical, have been highly satisfactory. They are published

Southern India. Two have attracted special notice at Gootticondah and Shingarootla near Caurampoody in the Pulnaud talook of the Kistna district, the former being of extraordinarily large dimensions. At Belliky near the foot of the Coonoor ghaut leading to the Neilgherries are two remarkable rock-cut caves. Some ancient mounds of large size composed of scorious ashes are found in different places. They are said to be artificial, but their origin is doubtful. See in particular Coodatany and Nimbaupooram in Vol. III. Stone monuments grouped by European antiquarians under the titles of rock shrines, groups of placed rocks, barrows, cairns, dolmens, menhirs, and cistvaens, are found throughout the country. They are scarce in certain districts, as in Cuddapah, Nellore, Tanjore, and Trichinopoly; but it is not known that any district is entirely without them. Those in North

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periodically in the illustrated series of memoirs and records belonging to the survey, and in the work entitled Palæontologia Indica, in which there are figured and described by competent authorities the flora and fauna of Indian geological periods. To the general reader, as well as to the geologist not familiar with India, the most important result of the thirty years' survey is the Manual of the Geology of India, chiefly compiled from the Observations of the Geological Survey, by Mr. H. B. Medlicott, its present superintendent, Mr. W. T. Blanford, late senior deputy superintendent, and Mr. V. Ball, long one of the surveyors, in four volumes (1879–81), of which one forms a map on the scale of 64 miles to the inch. The survey possesses a museum, library, and mining record office in Calcutta.

[2] SKETCH HISTORY OF THE WORK DONE BY THE GEOLOGICAL SURVEY OF INDIA IN THIS PRESIDENCY.—*Introduction.*—The following notes show the work done by localities. The desirability of a rigidly systematic survey of the country has been always recognised by the heads of the department, but several causes have militated against it. Two causes may be specially mentioned: namely, the demands of Government for special information as to the existence and mode of occurrence of valuable minerals, such as coal, gold and iron, and the necessity of determining certain questions of scientific interest relating to the homotaxis subsisting between the fossiliferous cretaceous and jurassic rocks of the eastern coast and others in different parts of India, or elsewhere. These causes have not appreciably diminished the aggregate outturn of work, but they have given rise to many interruptions. (2) *The Neilgherry Plateau.*—This tract was surveyed and reported on in 1857-58, and was the first so treated. The report was published in 1859 in the first volume of the Memoirs of the Geological Survey of India. (3) *The Cretaceous Rocks of Trichinopoly, South Arcot and Pondicherry.*—The report on the cretaceous rocks of Trichinopoly and South Arcot districts and of the French territory around Pondicherry was published in 1863 as part 1 of Vol. IV of the Memoirs of the Geological Survey of India. This report described also the jurassic plant beds of Ootatoor, &c. (underlying the cretaceous basin in Trichinopoly district), and referred rather briefly to the older and newer formations adjoining the cretaceous rocks. The survey of these rocks was executed between 1857 (when the survey was first extended to this Presidency) and 1862. "The Cretaceous Fauna of Southern India" occupies four volumes of the Palæontologia Indica, published between 1863 and 1873. (4) *The Gneissic, Tertiary and Recent Rocks of Salem, Trichinopoly, South Arcot, and Tanjore.*—The cretaceous areas above described lie within the limits of sheet 79 of the Indian Atlas; which series of maps had been selected to form the basis of the geological maps. The country surrounding the cretaceous rocks was therefore next taken up in systematic extension of the work. The fluviatile and marine alluvia, the greater part of the lateritic and Cuddalore formations, and a large tract of gneissic rocks in the Cauvery, were thus mapped in 1859-60. In 1861 and 1862 the area of sheet 79 was completed by mapping the gneissic rocks around Salem and the central and southern parts of South Arcot. The results of the survey of the extra cretaceous area of sheet 79 were published in 1864 in a memoir, "On the Geological Structure of parts of Salem, Trichinopoly, South Arcot, and Tanjore districts," which formed part 2 of Vol. IV of the Memoirs, Geological Survey of India. (5) *The Transition or Sub-metamorphic Rocks and the Lower Vindhyans of Cuddapah, Kurnool, Bellary, North Arcot, Nellore, and Kistna Districts.*—In 1861 fresh ground was broken by taking up for survey the transition or sub-metamorphic rocks in Cuddapah district, the "Diamond Sandstone" of Malcolmson. The extensions of these rocks were followed into North Arcot, Nellore, Bellary, Kurnool, and the Kistna districts in following seasons. Wide spreads of the surrounding gneissic country had to be examined in order not to overlook possible outliers (for inliers) of the transition rocks, and thus were surveyed considerable tracts of the south-west of Cuddapah, the east of Bellary, and the centre of Nellore districts. Early in 1865 the country round Kurnool town and near the junction of the Kistna and Toongabudra rivers, as also much of the Coondair and Bhavanausy valleys, was surveyed. The Cumbum talook and the eastern border of the Cuddapah basin, from latitude 15° north up to its north-east extremity, at Juggayapett, were surveyed in the seasons of 1865-66-67 and 68-69. The country around Juggayapett, in which coal was reported to exist, was very closely examined, but no coal could be found, a conclusion which was fully confirmed by the borings made by order of Government. The assumed coal-field had been visited, in 1868, by the Superintendent of the Geological Survey of India, but no indications were found of the existence of coal. The rocks of the Juggayapett country belong to the transition or sub-metamorphic series, and not to the much younger Gondwana system, the lower part of which forms the lowest horizon at which coal has been found in India. The greater part of the area occupied by the "Diamond Sandstones" of Malcolmson was surveyed resulting, or at least viewed, in the important memoir "On the Cuddapah and Kurnool Formations in the Madras Presidency," published in 1872 as part 1 of Vol. VIII of the Memoirs, Geological Survey of India. In this memoir the division of the "Diamond Sandstone" series into two distinct series, the "Cuddapah's" or Upper Transition and the "Kurnool's" Lower Vindhyans, was first adopted. The rocks belonging to these two series occupy tracts included in the atlas sheets, Nos. 58, 59, 75, 76, 77, and 78. (6) *The Chingleput District north of the Palaur.*—In the latter part of 1862 the examination of the Chingleput district (included in sheet 78) was commenced and the survey of so much of it as lies north of the Palaur river, together with adjoining parts of North Arcot, was completed in 1864; some obscure points being revised in 1865. The results were finally published in 1873 in a memoir "On the Geology of Madras," forming part 1 of Vol. X, Memoirs, Geological Survey of India. Some of the plant remains found in the Shreepermatore division of the Upper Gondwana system were described and figured in part 4 of Vol. I of the "Fossil Flora of the Gondwana system" (Palæontologia Indica) in a monograph on the flora of the "Outliers on the Madras Coast." (7) *The Chingleput District south of the Palaur.*—In 1864 the part of Chingleput district lying south of the Palaur river and adjoining parts of North and South Arcot (so far as included in the south-east quarter of sheet 78) were geologically mapped. In 1865 was surveyed a considerable tract in the centre of North Arcot district closing up the work between the area last-mentioned and the western limit of the north-east quarter of sheet 78. For some unexplained reasons the officer who conducted this survey had not written his final reports on these tracts, nor on those surveyed by him in Cuddapah, Bellary and Nellore districts, when he was prematurely cut off by death in 1869. Though the maps and notes remain, it would be difficult for any one not having large personal acquaintance with the countries in question to draw up satisfactory memoirs on the data given by them. A sketch of the geology of North Arcot as far as surveyed was drawn up in 1879 (partly from the notes just mentioned) and published in the Records, Geological Survey of India, Vol. XII. (8) *The Coal-bearing Beds of Godavery Valley.*—In 1870-71, the Deputy Superintendent, Geological Survey of India, first connected the known rock formations of Central India with those established by the geological survey in the Madras Presidency, and gave much time and attention to superintending the borings for coal on and near the banks of the Godavery. On this occasion careful traverses of the country were carried from Sironcha down to the neighbourhood of Noozveed in the Kistna district. In 1872 borings for coal were made in a patch of Baraukar rocks (the true Indian carboniferous system) at Bedadnole, 20 miles west of Rajahmundry. Unfortunately the

Arcot, Chingleput, Coimbatore, Godavery, Kistna, Malabar, the Neilgherry hills, the Pulney hills, Salem, the Shevaroy hills and Tinnevelly, have attracted the most attention. They are frequent in upland tracts and where the situation is waste and rocky. Rock shrines consist of projecting rocks (called by Europeans tors) and rocking stones or large stones naturally poised (called by Europeans loggan stones); these being surrounded by double and single rings of rocks. Sometimes a large solitary rock is surrounded by a double circle of large stones, with two rocks on one side to form an entrance. These appear to have been sacrificial spots indicated merely by the presence of the rock. Groups of placed rocks are found similar in design to those of Carnac in Brittany. They are sometimes found alone, but sometimes also round a tumulus hereafter to be described. They are often placed in lines with singular exactness. These

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coal seams found were of too poor a quality to be of any practical value. The reports on this coal exploration were published in several papers in the Records, Geological Survey of India, Vols. IV, V, and VII. (9) *Alleged Discoveries of Coal Rocks in Bellary and Cuddapah.*—In the autumn of 1870, the presence of coal rocks having been reported by the Superintendent of the School of Arts to have been discovered near Gooty and Cona Oopalpaud (Tadpatry talook) in Bellary district, and also near Cuddapah town, an official examination was made. A report disproving the assumed discoveries was published in Vol. IV of the Records, Geological Survey of India, 1871. (10) *The Singareny Coal-field.*—The discovery of the Singareny coal-field in the Nizam's territory in 1872, though not strictly belonging to the present list of work accomplished by the survey, promises to be of the highest value to the Madras Presidency, if the coal-field be connected by a direct railway with Bezwada, the centre of the great canal system of the Godavery and Kistna deltas and the eastern coast, and the starting point of the Bellary-Kistna Railway. By these the coal raised at Singareny can easily be distributed to Madras city and the South Indian Railway and to the Madras, Great Indian Peninsular, and South Mahratta Railways, as well as others yet to be constructed. (11) *The Rajahmundry, Vizagapatam and Kistna Districts.*—In 1872-73 were surveyed the Rajahmundry district, the southern extremity of Vizagapatam and the northern half of the Kistna district, the results being published in 1880 in the form of a memoir "On the Coastal Region of the Godavery," which forms part 3 of Vol. XVI of the Memoirs, Geological Survey of India. An instructive series of fossil plants found in the Upper Gondwana beds of Gollapully, near Ellore, is figured and described in part 4 ("Plants from Gollapully") of Vol. I of the Fossil Flora of the Gondwana system (Palæontologia Indica). (12) *The Wynaud Gold-field.*—In 1874-75 the Wynaud gold-field was surveyed and the report appeared in the Records, Geological Survey of India, Vol. VIII, 1875. Another report has also been published on the same tract after a second visit. (13) *North Nellore and South Kistna Districts.*—The survey of the northern part of Nellore district (north of lat. 15° N.) commenced in 1866, was resumed early in 1875, extended into the southern half of the Kistna district (excluding the Pulnaud) in 1876, and completed in 1877. The description of this coastal tract which is included in sheets 75, 76, 94 and 95 was published in 1879 in part 1 of Vol. XVI of the Memoirs, Geological Survey of India, with the title "Geology of the Eastern Coast from lat. 15° north to Masulipatam." Some of the very beautiful fossil plants from the Upper Gondwana beds of Vemavaram, near Ongole, are figured and described in a memoir on "The Outliers of the Madras," part 4 of Vol. I of the Fossil Flora of the Gondwana system (Palæontologia Indica). (14) *Central and South Nellore.*—In 1880 appeared a memoir "On the Geology of the Nellore portion of the Carnatic," forming part 2 of Vol. XVI of the Memoirs, Geological Survey of India. A memoir of the geology of the Pranheeta-Godavery valley (Memoirs, Geological Survey of India, Vol. XVIII, part 3) published in 1881 deals only incidentally with some of the formations belonging to the Madras Presidency, which are referred to in discussing rocks of similar age lying outside the Presidency. (15) *Revision of Cretaceous and Jurassic Beds in Trichinopoly.*—In September 1877, the cretaceous rocks in Trichinopoly district were re-visited and large collections of fossils were taken thence. The jurassic Ootatoor plant beds were also re-examined for the purpose of comparison with the equivalent beds in the Madras and Ongole areas. Two short papers giving the results obtained appeared in the Records, Geological Survey of India, in 1878. (16) *South Tanjore and Trichinopoly, Poodoocottah State and North Madura.*—In 1878 was taken up the survey of the southern parts of Tanjore and Trichinopoly districts of the north-eastern part of Madura and of the Poodoocottah State (all within the limits of sheet 80). The report on this region was published in 1879 in the Records, Geological Survey of India, Vol. XII. (17) *Pondicherry Artesian Wells.*—In 1880 Pondicherry was officially visited for the purpose of inspecting the artesian borings made there by private enterprise. The reports expressed an opinion in favor of similar borings being tried in Madras and elsewhere along the coast alluvium. The reports, two in number, were published in Vol. XIII of the Records, Geological Survey of India. (18) *Central and South Travancore.*—In 1880-81 was surveyed a considerable part of Central and Southern Travancore, the Peermaid hills being also visited at the request of the Travancore Government, that report might be made upon supposed auriferous veins in that quarter. The report on Travancore appeared in the Records, Vol. XVI, 1883. (19) *Madura and Tinnevelly Districts.*—In 1880-81 work was resumed in Madura district and the survey was carried down into Tinnevelly district and on to Cape Comorin. This work was continued in 1881-82 and 1882-83 when the survey of the eastern part of both districts was completed and the results published in 1884 in a memoir on the "Geology of Madura and Tinnevelly Districts" forming part 1 of Vol. XX of the Memoirs, Geological Survey of India. (20) *South Travancore.*—The southern part of Travancore between Trivandrum and Cape Comorin was surveyed in 1882 and described in a report published in 1883 in Vol. XVI of the Records. (21) *Cave-exploration, Kurnool District.*—In the autumn of 1883 was taken up the exploration of the Billa Soorgam Bone Caves, in Kurnool district (first noticed by Captain Newbold in the Journal of the Asiatic Society of Bengal for 1844), when a considerable number of other caves previously unknown was discovered. These investigations still continue. The results of the cave-exploration have been recorded in two papers in the Records (Vol. XVII, parts 1 and 4, 1884). Some very good and interesting photographs of the Billa Soorgam and other caves in that part of the country have been secured. (22) *Nundigaum Talook, Kistna District.*—In January 1884 was surveyed a considerable portion of the Nundigaum talook, Kistna district, a description of which is included in the report on the country between the Singareny coal-field and the Kistna river published in Vol. XVIII of the Records—February 1885. (23) *Bellary and Anantapore Districts.*—The regular work of the geological survey now in progress is the examination of the great bands of schistose and granitoid gneiss traversing the Bellary and Anantapore districts. (24) *Miscellaneous.*—The above notes give the principal items of field-work accomplished, or still in progress, in the Madras Presidency, but the officers of the survey have rendered to Government directly, or indirectly, various other services. In the case of some of the longer memoirs above referred to, a précis of the information collected was published in the records very soon after the completion of the survey, to prevent the delay inevitable in the preparation of long reports and the accompanying maps and other illustrations. Special reports have been made to Government on specimens of coal, lignite and various metallic ores submitted for opinion. Correspondence has also been conducted with local officials, commercial firms and private individuals about iron ores, magnesite, corundum, gypsum Kaolin, chrome ores and other minerals of real or supposed value. Communications from Local Fund officials and others as to the feasibility of artesian borings, some in promising, others in impracticable, localities have been dealt with by the officers of the department. Public lectures on geology have been delivered at the Civil Engineering College. The mineral and rock collections and the palæontological collections at the Central Museum were arranged by officers of the department in 1863. The officers have also been frequent contributors of specimens to the Museum in various departments—petrological, mineralogical, palæontological, geological and ethnological.

structures would appear to indicate rude temples. Barrows are found in large or small groups. They consist of low tumuli or mounds, surrounded by single, double, and treble circles of large stones and rocks. The upper part of the tumulus contains nothing; but on digging deeper cists or sarcophagi formed of limestone slabs containing skeletons are met with, and around them urns of black and red pottery, with arms, arrow and spear heads, iron tripods, &c., are found. In some instances wrought copper and cast bronze belts have been discovered, with necklaces made of beads, portions of shells, and similar objects. It is remarkable also that an earth not belonging to the locality, red, sandy, or gray, has often been used to fill up these cairns. The cists lie at a depth of from eight to eighteen feet from the surface, and in some cases the space between the surface and the cists is found to contain evidences of human sacrifices, skeletons thrown in irregularly, skulls separate from the skeletons, and the like. These are evidently the earliest burial-grounds. Another class of barrows, which in outer appearance and construction precisely resemble those above described, contain, buried at greater or less depth, urns, large and small, with human ashes, pieces of bone, and charcoal. Archæologists have found no remains of arms or iron utensils in these last-named cairns. They appear to indicate a later stage of burial, on account of the evidence of cremation. Cairns are barrows made of stones piled together, in place of the ordinary heaps of earth. They abound on the hills of Southern India, especially in the parts which are now thickly populated. Some of these are more carefully constructed than others, and appear as far as can be seen to range through all degrees of antiquity. Dolmens (from the Celtic 'daul,' a table and 'maon,' a stone) consist of square or oblong erections of various sizes, composed of three or more large slabs of stone set upon their edges, and covered by a table-stone which is supported by them. They are closed or partially closed on three sides, and have one side entirely open. They contain no remains, and are probably memorial constructions or cenotaphs. Menhirs (from the Breton 'men' = stone, and 'hir' = high) are free-standing large stones. They are commemorative of particular spots. In Ganjam these are found as a substitute for cairns to mark places of burial. Cistvaens are constructed similarly to dolmens, but have four sides closed together, and when perfect they have a slab as cover. They are found sometimes isolated, but more usually buried under barrows. They are understood to have been used as depositories of the ashes of human beings after cremation. They contain these ashes, mixed with partly calcined human bones and pieces of broken pottery of a red or black colour. Some cistvaens have a round hole in one of the end slabs, from six to nine inches in diameter. This is a point of similarity with similar remains in Europe, Southern Russia, Circassia, &c. These remains are generally classed as prehistoric, but they are at any rate with certainty Dravidian. The Coorumbar of the Carnatic still erect dolmens. The Todahs of the Neilgherry hills still make azhaurams or stone circles. Such remains are at present known to prevail mostly in Southern and part of Central India, but there is a singular resemblance between these and the same kind of remains in the northern latitudes of Europe. It is probable that they indicate methods of construction which are common to all races of men at a certain stage of development.[1] The

[1] Sketch General Account of Tumular Burial Places.—*Introduction.*—These may be defined as burial-places in which the remains of the dead, either unburnt or burnt, are found, accompanied by other objects which have been buried simultaneously. The northern countries of Europe—Denmark, Sweden and Norway—are particularly full of such ancient burial-places; and they have received careful attention from the northern antiquaries, by whom they have been divided, according to their contents, into three classes:—Tumuli of the Stone period; Tumuli of the Bronze period; and Tumuli of the Iron period. Those of the Stone period are considered the oldest because neither bronze nor iron is found. Those of the Bronze period are considered next oldest, because iron is not found. The stone tumuli are often of great size, and are peculiarly distinguished by their important circles of stones and large stone chambers, in which are found the remains of unburnt bodies, together with objects of stone and amber. This period represents the lowest state of civilization; a state before the introduction of metals, when arms and implements consisted of spear-heads of flint and arrow-heads of flint or bone. The tumuli of the Bronze period contain relics of burnt bodies, vessels of clay and implements and ornaments of bronze; and so show the people in a more advanced state of civilization than the preceding. The tumuli of the Iron period show the people in a comparatively advanced state of civilization. Iron-swords, knives, and spear-heads, highly polished vessels, and trinkets of gold, silver, and precious stones are found in these, and some of them also contain sculptures and inscriptions. Besides the countries above mentioned, tumuli are found in Germany, France, Spain, Portugal, Great Britain, Siberia, America and India. In Europe tumuli belonging clearly to each of the three periods are common. In the south of India, investigation has not been sufficient to make a similar definition; and it cannot be said whether the tumuli do or do not go back to the earliest period. (2) *Tumular burial without cremation.*—This belongs to races quite beyond the reach of history. (3) *Tumular burial with cremation.*—The earliest accounts of tumular burial accompanied by cremation are given in the Iliad. The account of the funeral of Patroclus describes how the body was left burning during the night, and the embers were quenched with wine in the morning; how the ashes were inclosed in an urn, and placed near the centre of the place occupied by the pyre which was surrounded by an

names by which these remains are known to the natives in Southern India are very various. On the West Coast a special kind of menhir is found called by the natives topicull, hat stone; or kodeycull, umbrella stone. A more general term on the West Coast is nannanauticull meaning stone standing over a place where treasure is hid. A cairn is called by the Badagahs of the Neilgherries poccull or navel-stone; and a barrow is called by them poncooly or gold-pit. At Devanoor in the South Arcot district a large menhir in the middle of a number of dolmens is called cutcherry-cull or the stone of office. In the Chingleput district a tumulus goes by the name of Coorumbar-mode, or Coorumbar's mound. In the Teloogoo country stone monuments are called racshasa goondloo or rocks of the giants, but this is a sanscritized term. The most prevalent term in Southern India is Pandicoozhy or pit of the Paundies. This is plainly associated with the name of the Pandya country, for which see the first foot-note in the present work, under the heading Mahabharat. Paundy is the oldest Tamul word for a Tamulian.

729. The archæological remains of Southern India usually styled historic fall under five principal classes:—architecture, sculpture, coins, inscriptions, and military works and records. The architecture is divided into the two great classes of Hindoo and Mahomedan, each widely distinct from the other. The Hindoo architecture may be sub-divided according to style into four classes; Carnatic, Chalookyan, Booddhist, and Jeina. A detailed description of each of these will be found under those titles in Volume III, and need not here be repeated. The Carnatic style, otherwise called the Dravidian, is practically the indigenous style of the Presidency; though the Chalookyan prevails in its most northern parts. The remains of the ancient Booddhist architecture are only found in the Godavery and Kistna districts, in the neighbourhood of the Kistna river. The remains of Jeina architecture are found all over the Presidency, and especially on the West Coast; but it is still only an occasional style. In Vol. II, App. XXXVIII, will be found a list of conjectural and approximate dates assigned to the principal Hindoo temples, &c., in the Presidency, according to the most recent researches. The Mahomedan architecture special to Southern India is also treated of in Volume III under that title. The three Dekhany styles are the Bahminy, the Beejapore, and the Golcondah. The Mysore style of the end of the eighteenth century has also been reckoned as a separate Mahomedan style. The sculpture of Southern India is almost necessarily limited to the Hindoos, as the Mahomedan religion forbids the representation of anything living, either man or animal. It is divided into the four classes of indigenous, Booddhist, Jain, and Brahminical, according to the religious beliefs which occasioned them. The indigenous sculptures consist of nagaculls or serpent figures, veeraculls or figures of heroes, and representations of village goddesses, demons, &c. The Booddhist sculptures consist of bas-reliefs and detached statues. The principal subjects of Booddhist sculptures are shown in Vol. II, App. XXXVII. The Jain sculptures are for the most part restricted to a representation of their twenty-four hierarchs whose names and distinctive symbols are shown in the same appendix. The Brahminical sculptures are nearly countless; see the list of the principal in the same appendix. Their subjects are generally forms of Brahma, Vishnoo, or Shiva; but others also are met with, more especially the figures of the larger animals, the lion, elephant, bull, and horse. The question of South Indian antiquarian coins is being treated by Messrs. Elliot and Thomas in the publication "Numismata Orientalia," but it is not known when the work will be completed. They fall under the classes of Roman coins, brought to India after the conquest of Egypt by the Romans at the beginning of the Christian era; Arab coins from Egypt

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artificial substructure; and how loose earth was then heaped above the whole so as to form a mound. Ezekiel (B.C. 587) predicting the fall of 'Meshech and Tubal' says 'they are all gone down to hell with their weapons of war; and they have laid their swords under their heads.' These were the inhabitants of the neighbourhood of the Caucasus mountains and the Black Sea, and probably the Scythians of Herodotus. Tacitus, in the first century, A.D., says of the Germans, that 'the bodies of illustrious men were consumed with a particular kind of wood, but the funeral pile was neither strewed with costly garments nor enriched with fragrant spices. The arms of the deceased were committed to the flames and sometimes even his horse. A mound of earth was then raised to his memory, as a better sepulchre than those elaborate structures which, while they indicate the weakness of human vanity, are at best but a burden to the dead.' (4) *Historical limit of tumular burial.*—Tumular burial disappeared before Hindooism, Judaism, Mahomedanism, and Christianity. The Aryan Hindoos (whether Brahmins, Booddhists, or Jains) first burn their dead; they then gather the ashes and throw them into a running stream, or in the case of distinguished persons they sometimes place them in an urn and bury them. But in no case is there any tumular burial. The Semitic races have from the earliest periods observed the custom of burying their dead unburnt and unmaimed. The same is the case with the Arabs. Christianity has continued the practice.

and Syria; Mahomedan Indian coins dating from the middle of the sixteenth century; and Hindoo coins not of great antiquity. A sketch history of Mahomedan and Hindoo coinages will be found in the article on Time, Money, Weights, and Measures. Inscriptions have been divided for all India into the following classes:—(1) early Booddhist, in Indian Pali, from B.C. 250 to 50, on pillars, rocks, and caves; (2) later Booddhist, in Indian Pali, from A.D. 0 to A.D. 400; (3) Indo-Scythian, in Aryan Pali, from B.C. 100 to A.D. 100, on stone slabs, copper-plates, and seals; (4) early Brahminical, in Sanscrit, from A.D. 100 to 600; (5) mediæval Brahminical, in Sanscrit, from A.D. 600 to 1193; (6) later Brahminical, in Sanscrit, from A.D. 1193 to 1750; (7) early Mahomedan, in Kufic and Arabic, from A.D. 1193 to 1451; (8) later Mahomedan, in Persian, from A.D. 1451 to 1750, on masjids and tombs of the Moghul emperors. The Asoca inscriptions at Jowgada in Ganjam illustrate the first class. The Amravatty tope has inscriptions under the second class. The copper-plates and stones of the Chalookya rajahs illustrate the fifth class. Those of the Vijianugger dynasty illustrate the sixth class. The list at foot [2] shows the principal old forts, Hindoo and Mahomedan, in the Presidency. The next foot-note [3] shows monuments of interest connected with British history in this Presidency.

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[2] LIST OF THE PRINCIPAL SITES OF HINDOO AND MAHOMEDAN FORTS IN THE PRESIDENCY ARRANGED ALPHABETICALLY.

Ahtoor in Salem district.
Amboordroog in North Arcot district.
Arcot; Hindoo; now almost ruined.
Ariancooppam near Pondicherry; Hindoo.
Arnee in North Arcot; Hindoo; in ruins.
Bellary; Hindoo, 15th century A.D.
Bobbily in Vizagapatam district; Hindoo.
Canigherry in Nellore district; Hindoo, 13th century A.D.; on a hill 1,500 feet above the sea.
Cannanore in Malabar; Hindoo.
Caroongooly in Chingleput district.
Chetput in South Arcot district; Hindoo.
Chetwye in Malabar; Dutch, A.D. 1717.
Chingleput; Hindoo, 16th century A.D.
Chundragherry in North Arcot; Hindoo, A.D. 1510.
Cochin in Malabar; First European fort in India, Portuguese, A.D. 1503; now ruined and occupied by a lighthouse.
Covelong in Chingleput district; Mahomedan, A.D. 1745; blown up in A.D. 1752 by Clive.
Cuddalore in South Arcot; Mahomedan; in ruins.
Devicottah in Tanjore, on the coast at the mouth of the Coleroon river; an early settlement of the East India Company; ruined.
Dharaupooram in Coimbatore district; the fort dismantled in A.D. 1792.
Dindigul in Madura district, on a rock, 1,223 feet high; Hindoo; was occupied by the British until A.D. 1860; is of great natural strength.
Fort St. David in South Arcot, 17th century A.D.; parts are in good preservation; it is a landmark for mariners.
Fort St. George; British, A.D. 1639.
Ganjam; East India Company's Fort, A.D. 1768.
Goorramcondah in Cuddapah; Hindoo.
Gooty in Bellary district; Mahratta, 16th century A.D.
Gundicote in Cuddapah district, 1,670 feet high; Hindoo, A.D. 1589.
Jinjee in South Arcot; Hindoo, A.D. 1442; there are several fine buildings in the fort.
Palghaut in Malabar; Hindoo.
Penoocondah in Bellary district; Hindoo; afterwards occupied by Mahomedans, who left many buildings.
Permacoil in South Arcot; Hindoo; on a hill 370 feet high.
Royadroog in Bellary district; Hindoo.
Shunkerrydroog in Salem district; Hindoo; very strong.
Suttimungalam in Coimbatore district; Hindoo.
Tanjore; Hindoo; occupied by the Mahrattas.
Tellicherry in Malabar; Hindoo; used as a jail.
Tranquebar in Tanjore; built by the Danes, A.D. 1624.
Trivandrum in Travancore; Hindoo; full of quaint wooden buildings.
Tyaugadroog; South Arcot; old Hindoo.
Vellore; North Arcot; Hindoo, 1500.
Vinoocondah in the Kistna district; old Hindoo.

[3] PUBLIC MONUMENTS CONNECTED WITH BRITISH HISTORY.

Bronze statue of General Neill, 1st Madras Fusiliers, in the Mount Road, Madras.
Statue of Schwartz by Flaxman in the church at the little fort, Tanjore.
Tower on the coast at Shalwanaicakanputnam in Tanjore district, erected by the late Rajah of Tanjore to commemorate the battle of Waterloo.
Monument on the Red Hills, west of Pondicherry, to Major Stevens, Chief Engineer, killed in the trenches during the siege of Pondicherry, 1778.
Obelisk at Cottacooppam, north of Pondicherry, over graves of soldiers killed at the siege of Pondicherry, 1760.
Cenotaph at Tricalore to the memory of Arthur French, M.C.S., who died at Cuddalore in 1823.
Monuments to officers who fell or died of wounds received at Panchaulamcoorchy, 1799–81, at Vellauram, Tinnevelly district.
Bronze equestrian statue of Sir Thomas Munro, in the Mount Road, Madras.
On the parade-ground facing the Council House at Madras, stone canopy covering a large pedestrian marble statue of the Marquis of Cornwallis on a marble pedestal, decorated with groups of figures in alto-relievo, representing the surrender of the sons and suite of Tippoo Sultan.
Monument at Putticondah built in memory of Sir Thomas Munro, erected on the spot where he died of cholera.
White marble statue of Sir Thomas Munro in the Fort Church, Madras.
Cenotaph to the Marquis of Cornwallis, enclosed by an iron railing cast from the cannon taken at the siege of Seringapatam, 1799, by the troops under his command; opposite the High Court, Madras.
Cenotaph to Colonel Dalrymple on the Parade-ground, St. Thomas' Mount.
Obelisk in memory of General Sydenham at St. Thomas' Mount.
Granite column to Colonel Noble, erected by the men of the Horse Artillery at St. Thomas' Mount.
A half-length marble bust by Chantrey to Colonel Noble, placed by the officers, Royal Horse Artillery, in the Church, St. Thomas' Mount.
Madras Memorial Hall, erected by public subscription in memory of the Madras Presidency not joining in the Sepoy Mutiny of 1857.
Monuments to Colonel Brown and Captain Hislop, killed in the battle of Poolalore, Conjeeveram, 1781.
Monument on the Race-course, Guindy, to the memory of Major Donald Mackay, who died in 1783.
Cyclone monument in the Fort at Masulipatam to the memory of those who perished in 1864.

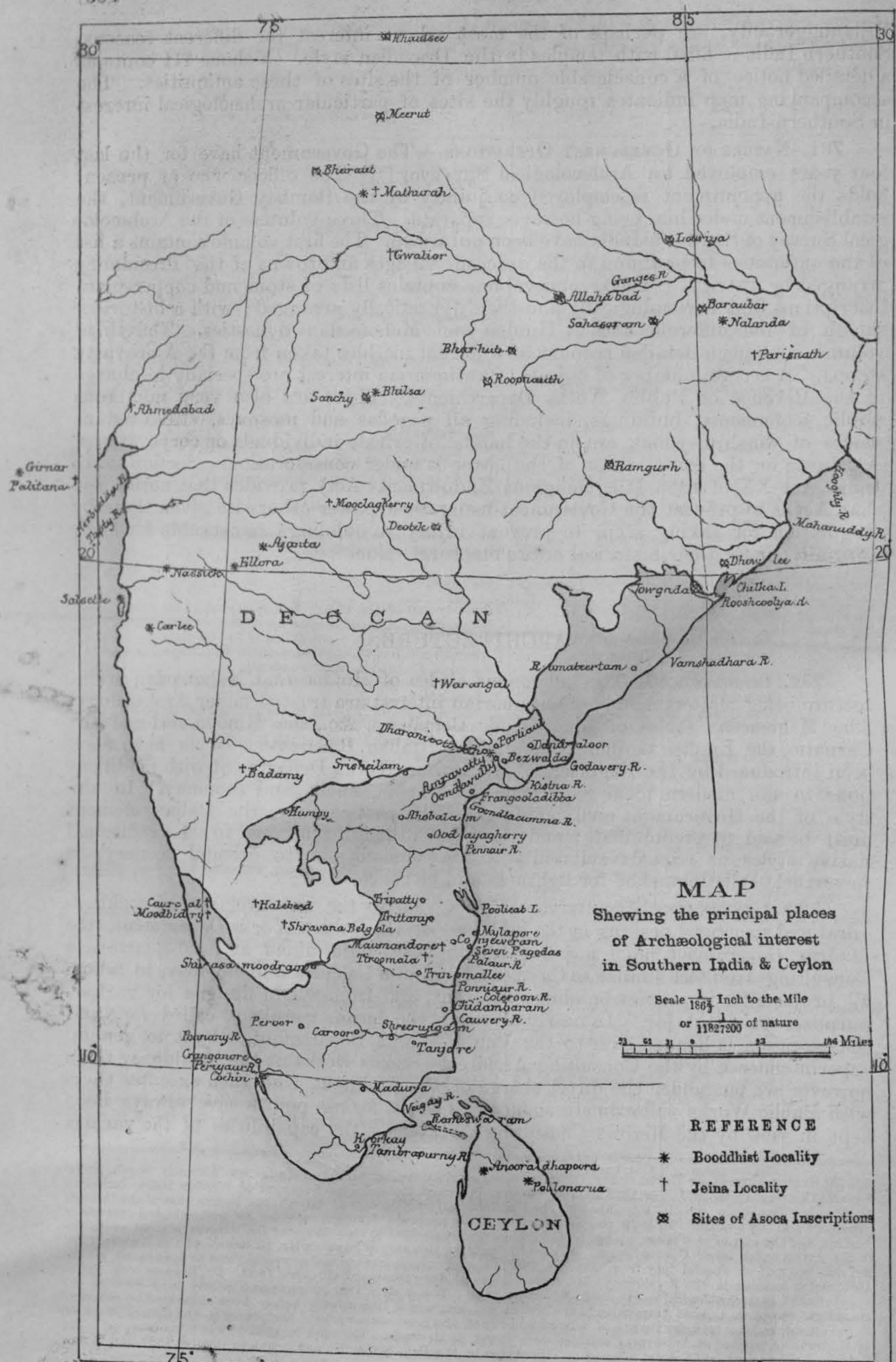
730. The general archæological topography of the Presidency is shown in tabular form by districts in the foot-note.[4] Reference may also be made to the

[4] LIST OF THE PRINCIPAL OBJECTS OF ARCHÆOLOGICAL INTEREST IN THE PRESIDENCY, ARRANGED BY DISTRICTS.

District.	Talook.	Village.	Name or description of object.
Anantapore ...	Tadpatry ...	Tadpatry	Two great gopoorams of a deserted temple.
Arcot, North...	Throughout ...	......	Several rock-cut Jeina memorials.
	Goodiyattam and Chittore.	......	Dolmens, stone-circles, &c.
	Pulmanair ...	......	Small dolmens by modern Coorumbar.
	Chundragherry.	Chundragherry ...	(1) Rajah Mahaul or Rajah's palace. Built by the Teloogoo kings. Rajah Shreerungaroyer of that dynasty is said to have signed the treaty granting the settlement of Madras to the English in the centre room in 1639. The mahaul is unique for strength and peculiarity of architecture; built almost entirely of granite, no wood being employed. (2) Ranee Mahaul, a smaller building adjoining.
	Poloor	Tiroomullay ...	Formerly a Jeina centre. A Jain figure here 16¼ feet high.
	Chundragherry.	Upper Tripatty ...	Sacred hill and great temple, changed by Ramanooja from worship of Shiva to that of Vishnoo.
	Do. ...	Lower Tripatty ...	Temples.
	Carvetnugger Z.	Trittany	Ancient temple with inscriptions.
	Vellore ...	Vellore	Temple. The marriage mantapam is noteworthy.
	Arcot ...	Arcot ...	The Delhi gate. Ancient seat of the Carnatic family. Citadel defended by Clive.
	Do. ...	Maumandore ...	Jeina rock-cut caves.
Arcot, South...	Cuddalore ...	Cuddalore ...	(1) The garden house. Built about 1738. Was more than once captured by the French. During the period from 1746 to 1752, when Fort St. David was the chief settlement on the Coromandel Coast, this building is said to have been the Governor's residence. (2) At Fort St. David some remains of the subterraneous gallery which ran round the fort under the glacis and of the mines leading off from it were not long ago discovered and opened up. (3) An obelisk to the memory of Major Stevens, killed at the siege of Pondicherry in 1778. (4) Some old tombs in an ancient grave-yard at Cuddalore. (5) An old grave-yard near Fort St David.
	Tindivanam ...	Jinjee ...	Fortress on three hills. Stormed by the French, and pillars taken to Pondicherry.
	Do. ...	Permacoil ...	Fort contested by French and English.
	Cullacoorchy ...	Tyaugadroog ...	Fort built by the French.
	Villoopooram ...	Valdavoor ...	Mahomedan Fort.
	Trinomallee ...	Trinomallee ...	Fire lingam.' One of the five great lingams of India.
	Chidambaram ...	Chidambaram ...	Air lingam, invisible.
Bellary ...	Hoovinhadgally.	Maugalam	Temple of Vengopaulsawmy remarkably sculptured.
	Hospett ...	Anantashayanagoody.	Temple of Anantasawmy of peculiar construction.
	Do. ...	Vijianugger in the limits of Camalaupooram.	Temple of Pattabhirama. Temple of Coombhara. Mattam of Chandrashekhara. Rock-cut room or hall. Temple of Yellamma. A tower, the top of which is in the shape of a lotus. Another tower (dark). Palace with spiral steps. Anesalmantapam, or elephant stables. Nowbutkhana. The gymnasium of Atchoota Row. Agasagitty Mahaul, or Washerman's Palace. Temple of Hazaura Ramchendra. Nelamaney, i.e., a house in the ground. Wocalihonda or Bath. Bheemanibaugaloo, or Bheema's gate. Gaunagitty (or oilmongers') Temple.
	Do. ...	Do. in the limits of Krishnapooram.	Oogranarasimha's temple. Krishnapooram temple. Wocalihonda temple.
	Do. ...	Do. in the limits of Humpy.	Sausivecaul Benakappa. Mantapam of Hemacoota. Cudlecaul Benakappa. Mantapam of Nija Linga. Manmata Mattam. Temple of Yedura Basappa.
	Do. ...	Do. in the limits of Vencatapooram.	Mautanga hill. Bazaar and temple of Atchootapooram. Temple of Rungasawmy. Temple of Rama. Varauha temple. Maulyananda Ragoonathasawmy. Temple of Goddada Simhappa.
	Do. ...	Nimbaupooram ...	Remarkable mound of calcareous scoria.
Canara, South.	Throughout ...	......	Nagaculls and Veeraculls.
	Oodipy	Caurcal	Jeina monolithic statue, 42 feet high. Only two similar exist, one next mentioned, and one at Shrauvana Belgola in Mysore.
	Mangalore ...	Yenoor	Jeina statue, 35 feet high.
	Do. ...	Moodbidry	Jeina temples. Style, stone imitating wood.
Chingleput ...	Throughout ...	......	Stone monuments.
	Sydapett ...	Little Mount ...	Church erected over traditionary site of St. Thomas's martyrdom.
	Do. ...	St. Thomas' Mount.	Stone cross in the church.
	Do. ...	Pallavaram ...	Hill called by the Brahmins after the five Pandavas.
	Chingleput ...	Mauvellipooram ...	Called Seven Pagodas. This great Dravidian work was executed by the Pallavas. See Vol. III.
	Conjeeveram ...	Conjeeveram ...	The seat of the Pallava Dynasty. Great Shiva temple, &c. See Vol. III.
Coimbatore ...	Throughout ...	......	Stone monuments. Roman coins.
	Collegaul ...	Shivasamoodram ...	Ruins of an ancient city.
	Coimbatore ...	Peroor	Carved temple.
	Caroor ...	Caroor	Ancient temples said to have been built by Chola kings.

different district notices in Vol. II, App. XII. The Jowgada inscription, Booddhist Amravatty tope, stone monuments at Mauvellipooram, and ruins of the Hindoo

District.	Talook.	Village.	Name or description of object.
Cochin ...	......	Cochin	Old church, once a cathedral. Tomb of Vasco da Gama. Ruins of Albuquerque's fortifications. Jewish synagogue, and clock 200 years old.
		Cranganore ...	An early settlement of the Jews. Shunkaracharya born here.
		Putticaud	Several temples and dolmens.
		Tiroocore	Temple in a cave.
		Tiroovilvamullay ...	Temple and rock-cut caves.
		Trishoova Peroor ...	Temple.
		Caccaud	Rock-cut cave.
Cuddapah ...	Throughout ...	.. ...	Forts of Poligars.
	Voilpaud ...	Goorramcondah ...	Old palace with upstairs.
	Madanapully ...	Sompully ...	Pagoda. Carved monolith in front with carvings. Fresco paintings.
	Cuddapah ...	Cuddapah ...	Four buildings formerly occupied as palaces of the Nawab of Cuddapah.
	Jummalmudoo-goo.	Gundicote Hill ...	Two temples constructed about 700 years ago, and one mosque built about 400 years.
Ganjam ...	Throughout ...	......	Brahminical and Mahomedan remains. Menhirs erected by modern Sowrahs.
	Chicacole ...	Chicacole	First capital of the old Calinga Kingdom. Large mosque here, 200 years old and more.
	Do. ...	Calingapatam ...	Another capital of Calinga. Large mosque.
	Do. ...	Poorooshottapore ...	Stone-cut goddess.
	Mundasa Zemindarry.	Mahendragherry Mount.	Four temples on the summit.
	Berhampore ...	Jowgada ...	Rock engravings exhibiting the Asoca tablet.
Godavery ...	Bhadrachellam and Rekapully.	......	Stone monuments and circles.
	Ramchendra-pooram.	Drauksharamam ...	Large temple.
	Ellore	Dendalore	Formerly part of the city of Vaigy, capital of the old Vengy Kingdom.
	Narsapore ...	Madapollam ...	Fort. The chintzes of trade called after this place.
Kistna ...	Goontoor ...	Oondavully ...	Four-storeyed rock-cut temple, made by Chalookyas. Colossal statue of Vishnoo in the third storey.
	Sattenapully ...	Amravatty ...	Remains of the great Booddhist tope. See Vol. III.
	Pulnaud ...	Pidoogooraula ...	The mound.
	Goodivauda ...	Goodivauda ...	A colossal figure of Booddha in the enclosure of a choultry.
	Bezwada ...	Bezwada ...	Religious centre of the ancient Vengy kingdom. Booddha image (stone and copper) in the library.
	Vinoocondah ...	Vinoocondah ...	A celebrated mantapam.
	Narsarowpett ...	Condaveed ...	The fort.
	Bezwada ...	Condapilly ...	Do.
	Sattenapully ...	Bellamcondah ...	Do.
	Nundigauma ...	Ramireddipully Hill.	A remarkable carved stone.
	......	Partiaul	Site of Golcondah diamond mines.
Kurnool ...	Throughout ...	......	Poligar forts. Inscriptions.
	Sirwail ...	Ahobalam	Ancient temples.
	Nundicotcore ...	Srisheilam	Great temple on the Kistna river, surrounded by many minor temples.
	Coilcoontla ...	Owk	Formerly the seat of a local line of powerful Hindoo chiefs.
Madura ...	Madura ...	Madura ...	Great Shiva temple. Trimal Naick's palace. Tamkam Bungalow, said to have been built by the ancient kings as a stand whence to witness the fights of wild beasts.
	Pulney ...	Pulney Hills ...	Dolmens.
	Ramnaud Zemindarry.	Rameswaram ...	Temple, object of pilgrimage to Hindoos throughout India. Specimen of the best Dravidian style.
Malabar ...	Throughout ...	......	Dolmens. Rock-cut sculptures.
Neilgherries ...	Throughout ...	......	Cairns, barrows, cistvaens, cromlechs.
Nellore ...	Oodayagherry...	Oodayagherry ...	Hill-fort.
Salem ...	Throughout ...	......	Stone monuments.
	Namcull ...	......	Embankment on the side of the Caroovattaur river.
	Salem ...	Shevaroy Hills ...	Cairns and cromlechs.
Tanjore ...	Throughout ...	......	Temples and Jeina remains.
	Tanjore ...	Tanjore ...	Ancient temple. The only large Dravidian temple known to be built on a pro-designed plan throughout. Palace of the late Rajah.
	Negapatam ...	Negapatam ...	Temples.
	Combaconam ...	Combaconam ...	Temples.
Tinnevelly ...	Throughout ...	......	Nagaculls. Veeraculls. Old coins.
	Ambasamoodram	Shermadevy ...	Sepulchral urns.
	Tencaray ...	Aditchanalloor ...	Do.
	Do. ...	Nullamullay ...	Do.
	Tencausy ...	Courtallam	Do.
	Tencaray ...	Korkay	The κόλχοι of the Greeks. First known seat of the old Dravidian dynasties. Receded inland and superseded by Cauyal. It by Tuticorin.
	Ottapidauram ...	Caloogoomullay ...	Rock-cut temple and Jeina inscriptions.
Trichinopoly ...	Trichinopoly ...	Trichinopoly ...	Nawab's palace. Main Guard gate.
	Oodayarpolliem.	Gungaycundapooram	Old temple.
	Trichinopoly ...	Shreerungam ...	The great Vishnoo temple.
Vizagapatam.	Vizagapatam ...	Vizagapatam ...	Durgah on the hill.


MAP
Shewing the principal places
of Archæological interest
in Southern India & Ceylon
Scale 1/186½ Inch to the Mile
or 1/11827200 of nature
Miles
REFERENCE
Booddhist Locality
Jeina Locality
Sites of Asoca Inscriptions
75°
85°
30
20
10
Khaulsee
Meerut
Bharaut
Mathurah
Gwalior
Lauriya
Ganges R.
Allahabad
Baraubar
Nalanda
Sahasaram
Bharhut
Parisnath
Roopnauth
Sanchy
Bhilsa
Ahmedabad
Ramgurh
Girnar
Palitana
Hooghly R.
Mooclagherry
Deoble
Mahanuddy R.
Ajanta
Ellora
Nassick
Dhauli
Jowgnda
Chilka L.
Rooshcoolya R.
Salsette
Carlee
DECCAN
Vamshadhara R.
Warangal
Dharanicota
Parliaul
Dandavaloor
Bezwada
Godavery R.
Badamy
Srisheilam
Amravatty
Oondavully
Kistna R.
Frangooladibba
Goondlacumma R.
Humpy
Pennair R.
Halebeed
Tripatty
Pooliicat L.
Shravana Belgola
Mylapore
Conjeeveram
Seven Pagodas
Palaur R.
Maumandore
Tiroomala
Ponniaur R.
Coleroon R.
Chidambaram
Cauvery R.
Peroor
Caroor
Ponnany R.
Tanjore
Cranganore
Periyaur R.
Cochin
Madura
Vaigay R.
Rameswaram
Korkay
Tambrapurny R.
Anooradhapoora
Pollonarua
CEYLON

Vijianugger city, are perhaps of the most salient interest for different reasons. Southern India is filled with temples in the Dravidian style. Volume III contains a detailed notice of a considerable number of the sites of these antiquities. The accompanying map indicates roughly the sites of particular archæological interest in Southern India.

731. NATURE OF GOVERNMENT OPERATIONS.—The Government have for the last four years employed an Archæological Surveyor.[5] The officer who at present holds the appointment is employed conjointly by the Bombay Government, the establishment under him being however separate. Three volumes of the Archæological Survey of Southern India have been published. The first volume contains a list of the antiquities to be found in the different villages and towns of the Presidency arranged by districts. The second volume contains lists of stone and copper-plate inscriptions first chronologically and then dynastically arranged; with a historical sketch of the different ancient Hindoo and Mahomedan dynasties. The third volume contains a detailed account of different marbles taken from the Amravatty stoopa. A certain number of objects of antiquarian interest are specially in charge of the Revenue or Public Works Departments. There are also very numerous public monuments, buildings, including all pagodas and mosques, still used as places of worship, which are in the hands of private individuals or corporations. A scheme for the conservation of the latter is under consideration. Section 23 of India Act XX of 1863 (the Religious Endowments Act) provides that nothing in that Act is to prevent the Government using their power otherwise given them by Regulation for taking steps to prevent injury to buildings remarkable for their antiquity, or for their historical or architectural value.

ARCHITECTURE.

732. INTRODUCTION.—The indigenous styles of Hindoo and Mahomedan architecture being matters mainly of antiquarian interest are treated under Archæology. The Mahomedan styles of Ahmedabad, Beejapore, &c., the Hindoo style of the Carnatic, the English Gothic style, and the Italian Renaissance style have each been introduced by the Engineers of the Public Works Department with modifications to suit modern local requirements of arrangement and economy. In the style of the Government civil buildings of the past century, the Italian element must be said to predominate; and the whole, though not equal to the traditional native styles as regards suitability to the climate and to oriental scenery, is nevertheless distinguished for lightness and elegance.

733. GOVERNMENT ARCHITECT.—With a view to the improvement of architectural and structural designs in the buildings of the Public Works Department, the Madras Government have now for fifteen years entertained at head-quarters a Consulting Architect similar to those entertained in Calcutta and Bombay, to whom all projects for important buildings are sent, and from whom designs for various purposes are called for. In nearly all cases the design merely is called for, and the execution is handed over to the Public Works Department, subject to general superintendence by the Consulting Architect. Some works at the Presidency town however are put under the direct charge of the Architect, who then executes them with Public Works subordinate agency. The following points have always been kept in view by the Madras Consulting Architect ; the capabilities of the various

[5] SKETCH HISTORY OF GOVERNMENT OPERATIONS.—An archæological survey of India was formally begun under General Cunningham in 1871. In 1873 Dr. Burgess was appointed Archæological Surveyor of Western India, including the Bombay Presidency, Scinde, together with the southern half of Rajpootana, Malwah, the Berars, part of the Central Provinces and Hyderabad. In 1879 the Secretary of State proposed arrangements for an archæological survey of Madras, and the matter was taken up by the Government, who decided to place it under Dr. Burgess without prejudice to his duties under other Governments. As a preliminary to this survey however Mr. R. Sewell of the Madras Civil Service was put on special duty from January 1881, to collect and arrange as complete lists as possible of all the antiquarian remains in the Presidency. Mr. Sewell's special duty continued till April 1883. Dr. Burgess took up his appointment as Archæological Surveyor in November 1881. The work in 1881-82 consisted chiefly in a visit to the Booddhist stoopa or tope at Amravatty in the Kistna district, which had shortly before been excavated by orders of Government, and the transfer thence of a large number of the most characteristic sculptures to the Central Museum at Madras. A number of Amravatty marbles were found at Bezwada. The work in 1882-83 was miscellaneous. The survey of the ancient buildings at Humpy or Vijianugger in the Bellary district was begun in October 1883, and is now in progress.

materials peculiar to the country, the development of ideas and forms suitable to the climate and situation, and the suppression of ornament which does not simultaneously serve a useful end. The introduction of European taste is avoided, with the two-fold object of developing arts indigenous to the country, and of dispensing with European ornamental materials difficult to import or imitate. Attempts are at present being made to erect buildings in which exterior stucco is absent; and brick, stone, and other durable materials are employed in their natural and unconcealed state. A Government brickfield is conducted by the Consulting Architect, in which superior bricks, tiles, pavements, stained glass, and terracotta are manufactured. Among the more important buildings designed by the Government Architect during the past few years at Madras are the Presidency College, the Senate House, the Revenue Board buildings, the Central Railway Station, the Lying-in Hospital, the Chepauk Public Works Offices and the Postal and Telegraph Office. In the provinces the Combaconam College, the Napier Museum at Trivandrum, the Lawrence Asylum at Ootacamund and several churches have been built. Among the works of restoration and adaptation are Trimal Naick's palace at Madura, the old palace at Trichinopoly, and the new palace at Royapettah, Madras. With the exception of the Presidency College, the Lying-in Hospital, the Chepauk Public Works Offices at Madras, and the Lawrence Asylum, Ootacamund, the whole of these buildings have been constructed in quasi-oriental styles, with similar ornamentation.

SCHOOL OF ARTS.

734. Description of the Institution.—The school [1] is divided into two branches, an Industrial School and a Drawing and Painting Academy, the latter being only lately instituted. In the Industrial School all students pass a course of freehand and model-drawing and then proceed to special work, for instance, goldsmith's work, wood-carving, pottery, wood and copperplate engraving, etching, modelling, glass-painting, house-decoration, &c. There are scholarships varying from 5 to 15 rupees per mensem. The aim of this branch is by the use of good examples of Indian art to endeavour to some extent to counteract the injurious influence which the large importations of European manufactures of the worst possible design have had on the native handicrafts, and also to train students for engraving and other useful occupations. The school is at present under great disadvantages owing to the want of good examples of Indian work to set before the students. Casts of good Indian wood and stone carving, examples of goldsmiths' work, printed cottons, photographs to a large scale of wall decoration and architectural detail, &c., are the articles most needed. In the pottery connected with this branch, besides ornamental ware and terracotta work for public buildings and stained glass windows, large quantities of insulators and porous cells for the Telegraph department, bread-pans for the Commissariat, gallipots for the Medical department, and works of a similar kind, such as roofing and flooring tiles, &c., are made. They are of good manufacture and can be profitably sold at prices much below imported articles. It has been proposed to form this section into a separate establishment. In the Drawing and Painting Academy the course of instruction is similar to that adopted at South Kensington. It includes elementary and advanced drawing and painting, modelling, &c., and painting and modelling from life. The fees are considerably higher than in the Industrial School. There were 147 pupils on the rolls at the close of the year 1883-84.

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[1] Sketch History of the School of Arts.—The School of Industrial Arts was established privately by Dr. Hunter in 1850, and was supported till 1855 by fees from pupils, by payments for drawings, engravings, and other work turned out in the school, and by small contributions from the public. In 1855 the school was taken up by Government, and a committee, in communication with Dr. Hunter, laid down rules and a course of instruction. Owing to the difficulty of finding at the same time competent technical instructors and a suitable class of students, the method of the school has somewhat fallen away from the intentions of Government as then expressed. Of late however the institution has engaged particular attention and efforts are being made to extend its usefulness. It is understood that the Madras school has been adopted as a model in Calcutta and Bombay. The institution has till quite recently and for a long period been under the charge of Mr. R. F. Chisholm.

MADRAS MUSEUM.

735. DESCRIPTION.—The Madras Government Central Museum, still so called though there are at present no others,[1] has for its chief object to encourage a taste for, and afford means for popular instruction in Indian Geology, Botany, and Zoology. It is also intended to develop the resources of the country by exhibiting raw products, to provide facilities for the scientific teacher or student of natural history or forestry, and to illustrate the ethnology and archæology of the Presidency and the manners and customs of its aboriginal inhabitants. The Museum possesses two well appointed libraries open to the public daily, one scientific, and one general. The museum itself is divided into the following rooms or sections:—'Geology,' including Mineralogy and Economical and district Geology; 'Botany,' practical, systematic and morphological; 'Zoology,' including a room devoted to mammals and birds, a room devoted to fish and reptiles, a room devoted to mollusca, crustacea, some of the lower forms of the animal kingdom and osteology, and a collection of insects; 'Raw Products and Manufactures,' vegetable and animal (including timbers and forest products); 'Machinery and models of tools, &c.;' 'Ethnology and Antiquities;' and 'Numismatology.' The Museum is open to the public every week-day 'free of charge,' and a special arrangement exists for the admission of 'gosha' women. In the list given below [2] is shewn the catalogues and other publications published in connection with the Museum, and in the

[1] SKETCH HISTORY OF MUSEUMS IN THE PRESIDENCY.—The efforts of Government to establish Museums in this Presidency commenced, under authority of the Court of Directors, in 1851. In that year the Madras Literary Society presented to Government a collection of geological specimens, and this, with the duplicates left after despatching the articles for the Great Exhibition in Hyde Park, London, formed the nucleus of what is now the Government Central Museum. Subsequently in 1855 subordinate Museums were established at Bellary, Cuddalore, Mangalore, Rajahmundry, and Ootacamund, partly for local purposes and partly with the object of serving as feeders for the Central Museum at Madras. These were not successful principally for want of competent agency, and with the exception of the one at Rajahmundry they were closed in June 1861. In 1862 many of the articles collected in the up-country museums were transferred to Madras. In the case of Ootacamund the allowance of Rupees 100 per mensem withdrawn from the Museum was transferred to the Public Library there, and so continued till 1875, in which year both it and the grant for the Rajahmundry Museum were discontinued. In 1855 the formation of a Zoological Garden in connection with the Central Museum was sanctioned, and the animals were retained there till 1863, when they were transferred to the Madras Peoples' Park. The Government continued to meet the cost of feeding the collection till the close of 1875, when it became a Municipal charge.

[2] CATALOGUES AND OTHER PUBLICATIONS OF THE MADRAS MUSEUM.

Catalogue of Books, Government Central Museum, Public Library, by Dr. G. Bidie.
Do. do. Scientific Library, by Dr. G. Bidie.
Catalogue of Fishes, by Dr. G. Bidie.
Do. of Coins.
Do. of Rock specimens, by Dr. G. Bidie.
Do. of Mollusca, by Captain J. Mitchell.
Do. of Mammals, by Dr. G. Bidie.
Do. (Supplement) Public Library, by Dr. G. Bidie.
Do. of Raw Products of Southern India, by Dr. G. Bidie.
Geology, Catalogue of Rock Specimens in Lithological Collection, and of Indian Geographical Collection of Rocks, by Dr. W. King, Geological Survey.
Report on Neilgherry Loranthaceous Parasitical Plants, by Dr. G. Bidie.
Catalogue of Sydney International Exhibition, 1879, by Dr. G. Bidie.
Do. of Amsterdam International Exhibition of 1883, by Dr. G. Bidie.
Do. of Melbourne do. do. 1880, by Dr. G. Bidie.
Do. of Calcutta do. do. by Dr. G. Bidie.
(The following reports and catalogues were all drawn up by or for, Dr. E. Balfour while Superintendent).
Reports from the Government Central Museum—
On its Origin, and Objects.
On the Marbles of Southern India.
On the Iron Ores, the Manufacture of Iron and Steel; with notices of the Coals of the Madras Presidency.
Appendix to the Report on the Iron Ores, and the Iron and Steel of Southern India.
Report on the Government Central Museum. On the progress of the Institution, and on the new Museums in the Provinces.
Report on the Woods and Trees of the City of Madras.
Report on the Government Central Museum, containing Report on the Elliot Marbles, Report on Museums in the Provinces, and Report on the Mineral substances of Southern India, useful as grinding, polishing, and sharpening materials.
Catalogue of the Government Central Museum, containing catalogue of the Aqueous Rocks as Mineral Structures: Palæontology or Catalogue of the Aqueous Rocks and their fossils in the order of their superposition.
Madura, its Rocks and Minerals; and Geology of Tinnevelly.
Catalogue of the Government Central Museum, containing Palæontology, Parts II and III.
Do. British Shells in the Museum.
Do. Shells in the Museum.
Do. Minerals in the Museum, to illustrate the physical and chemical characters of Minerals.
Catalogue of Minerals, Part II; containing Minerals used in Metallurgy and the Arts; Minerals entering into the composition of Rocks; Minerals used as Gems; Gems in their natural state, and catalogue of the Minerals, Part III; containing Minerals in the Government Central Museum, Madras, arranged to illustrate Systematic Mineralogy.
Catalogue of the Library of the Museum.
Gutta-percha of Southern India.
Catalogue of the Iron Ores, &c., of Southern India, and sample of Iron smelted and manufactured from them.
Catalogue of the Hypogene and Volcanic Rocks in the Museum.

next list [3] the various popular lectures delivered. In the following table [4] is shewn the number of annual visitors for the last 11 years.

GOVERNMENT IN CONNECTION WITH LITERATURE.

736. PUBLICATIONS.—Such of the Government Secretariat publications or records as appear likely to interest the public, and all annual reports, are offered to the public for sale. The sale depôt is at present the Government Press at Fort St. George in Madras. These publications are advertised in a supplement to the Gazette, and attention is drawn from time to time to the list published in the Gazette by a brief advertisement in the local newspapers. At foot is given a list of the more important of these now for sale, with the prices attached.[1] A few

[3] LIST OF LECTURES AND LECTURERS AT DITTO, WITH THE NUMBER OF LECTURES.

1873-74.	"Agriculture," by Mr. Robertson of the Government Farm, published by Messrs. Higginbotham and Co., Madras, in 1873 ...	2
,,	"Coal Measures of the Madras Presidency," by Mr. King of Geological Survey ...	1
,,	"Sight," by Dr. Furnell, F.R.C.S. ...	1
,,	Two on Biology and six on Botany, by Dr. G. Bidie, M.B. ...	8
1874-75.	"Law of Storms," by Captain Taylor, R.N.R. ...	1
,,	"Spontaneous Generation," by Rev. Dr. Strachan ...	1
,,	"Natural History as illustrated by collections in the Museum," by Dr. G. Bidie, M.B. ...	1
1875-76.	"On the opening of the new Library and the use of Museums," by Dr. G. Bidie, M.B. ...	1
1876-77.	"The Ancient Commerce of India," by Dr. G. Oppert ...	2
,,	"Human Physiology," by Deputy Surgeon-General VanSomeren, M.D. ...	4
,,	"Air," by Surgeon-Major H. King, A.M., M.B. ...	1
,,	"Comparative Philology or the Science of Language," by Dr. G. Oppert ...	1
,,	"What can be done to prevent the recurrence of Small-pox epidemics in Madras," by Surgeon-General G. Smith, M.D., published, but name of publishers not known ...	1
,,	"Some Fundamental facts in Physiology," by Surgeon-Major G. Bidie, M.B. ...	1
,,	"Practical Botany," by Surgeon-Major G. Bidie, M.B. ...	3
1877-78.	"Wave action and Break Waters," by R. F. Chisholm, Esq. ...	2
,,	"Precious Stones," by Professor H. King ...	1
,,	"Coinage and some ancient gold coins in the Museum," by Surgeon-Major G. Bidie, M.B. ...	1
,,	"The Science of language and comparative Philology," by Dr. G. Oppert ...	2
,,	"The Articulating Telephone," by G. K. Winter, Esq., C.E. ...	1
1878-79.	Do. do. do. ...	1
,,	"Cyclones," by Captain Taylor, R.N.R. ...	1
,,	"Cooking Stoves fed by Mineral Oils," by Major Kenney-Herbert ...	1
,,	"Botany," by Surgeon-Major G. Bidie, M.B. ...	12
,,	"Cinchona Culture in India with practical hints as to sites, species and harvesting," by Surgeon-Major G. Bidie, M.B., published by Messrs. Higginbotham and Co., Madras, in 1879 ...	1
1879-80.	"Our Domestic Cookery. Soups and sauces," by Major Kenney-Herbert ...	1
,,	"Sub-Marine Telegraphy," by C. Michie Smith, Esq., B.SC. ...	2
,,	"Physical basis of Music," by J. Cook, Esq., M.A. ...	1
,,	"The Esquimaux and the Land they live in," by Surgeon-Major G. Bidie, M.B. ...	1
1880-81.	"Fish, their habits and uses," by H. S. Thomas, Esq., F.L.S., &c. ...	1
,,	"Sub-Marine Telegraphy," by C. Michie Smith, Esq., B.SC. ...	1
,,	"The Physical basis of Music," by J. Cook, Esq., M.A. ...	1
,,	"The Madras Harbour," by W. Parkes, Esq., C.E. ...	1
,,	"Recent progress in Electric Lighting," by C. Michie Smith, Esq., B.SC. ...	1
,,	"The Ancient Arms of Southern India," by Surgeon-Major G. Bidie, M.B. ...	1
1882-83.	"Spectrum Analysis experimentally illustrated with the Electric Light," by J. Cooke, Esq., M.A. ...	2
,,	"Tramways and light Railways," by C. Vincent, Esq., A.M.I.C.E., published by Messrs. Higginbotham and Co., Madras, in 1881 ...	1
,,	"The Elements of Music," by D. St. Leger, Esq. ...	2
,,	"The Sun," by Professor C. Michie Smith, B.SC. ...	1
1883-84.	"Stone Implements as evidences of pre-historic man," by G. Bruce-Foote, Esq., F.G.S., Geological Survey of India ...	1
,,	"Mountain Railways with special reference to the proposed Coonoor line," by Captain W. H. Coaker, R.E. ...	1
,,	"The Singareny Coal Fields and others convenient to or in the neighbourhood of the Madras Presidency," by W. King, Esq., D.SC., Geological Survey of India ...	1

[4] ADMISSIONS FOR 10 YEARS.

1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
145,663	177,340	210,926	206,887	180,958	176,452	198,423	173,898	211,246	271,881	242,514

[1] LIST OF PRINCIPAL GOVERNMENT SECRETARIAT RECORDS FOR SALE AT THE GOVERNMENT PRESS.

Abkarry System of the Madras Presidency—Report on the—, by R. A. Dalyell. Price, Rupees 2.
Abkarry System—Second Report on the—, by R. A. Dalyell. Price, Annas 10.
Acts of the Government of India. At nearly cost price.
Acts of the Government of Madras. At nearly cost price.
Administration Report of the Irrigation Branch for the year 1880-81, price, Rupees 1-4; for 1881-82, price, Rupees 1-4; for 1882-83, with maps, price, Rupees 6.

of these belong to the series called "Selections from the Records" which is catalogued in Vol. II, App. LXXXV. The Government also make occasional official book publications. Among these are the District Manuals, or hand-books illustrative of the permanent characteristics of the different revenue districts. A series of manuals was projected for the Madras Presidency in 1862, detailed steps were taken in 1865, and the first manual that appeared was that of Mr. D. F. Carmichael for Vizagapatam, in 1868. Mr. Nelson's Madura Manual, which appeared in 1869, was the second of the series, and showed much original labour and research on

Annual Administration Report of Forest Department for 1881-82, price, Annas 8; for 1882-83, price, Rupees 1-8 per copy.
Annual Administration Report of Madras Presidency for 1874-75, 1875-76, 1876-77, 1877-78, 1878-79, 1879-80, 1880-81, 1881-82. Each—Price, Rupees 5; for 1882-83, price, Rupees 8.
Australian Trees on the Neilgherries—Report on Measurements of the Growth of—. Price, Annas 8.
Board's Standing Orders—Addenda and Corrigenda to the—for 1878 and 1879, price, Annas 4; for 1880-81, 1882 and 1883, price, Annas 4 each.
Buckingham Canal—Narratives with Maps of the Kurnool canal (together with G.O. No. 371, dated 16th January 1884) and Madras Water-supply Project and—(bound in marble). Price, Rupees 4-12.
Capital and Revenue Accounts—File of works for which—are kept other than Productive Public Works. Price, Rupees 4-4.
Casuarina in the Nellore District—Report on the Measurement of Rates of Growth of—. Price, Annas 8 a copy.
Census of the Madras Presidency, 1871,—Report on the—, by Surgeon-Major W. R. Cornish, F.R.C.S. In two volumes. Price, Rupees 10.
Census of the Madras Presidency, 1881, by G. Stokes and Lewis McIver. In five volumes. Price, Rupees 15.
Chemico-legal Examinations in Teloogoo. Price, Annas 2.
Cinchona Plantations—Report on the Government—, by Dr. Trimeu. Price, Annas 2.
Cinchona Succirubra or Red Bark Tree—Report on the expedition to procure seeds and plants of the—. Price, Rupees 3.
Civil Account Code, vol. I.—The first, second, third, fourth and fifth lists of corrections to the—. Price each Annas 2.
Civil Dispensaries—Report on—for 1874-75, price, 1 Rupee 4 Annas; for 1877, 1878, 1879, 1880, 1881 and 1882. Each—Price, Rupees 2.
Code of Regulations for the Public Works Department, with forms, &c. Price, Rupees 6-8 a copy.
Cotton Gins, &c.—Report on—, by Dr. F. Watson, vols. I and II. Price, Rupees 5.
Court of Small Causes—Report on—for 1878, 1879, 1880, 1881, 1882 and 1883. Each—Price, Annas 8.
Disturbances in Parlakimedy, Vizagapatam, and Goomsoor in 1832-36—Report on —. In two volumes. Price, Rupees 5.
Excise Administration Reports for fuslies 1286, 1287, 1289, and for nine months ending 31st March 1882, price, Annas 12 each; for fusly 1288, price, Rupee 1.
Fibres of Southern India—Report on the—, No. 23. Price, Rupees 3.
Forest Department Annual Administration Report for 1881-82, price, 8 Annas; for 1882-83, price, Rupees 1-8 per copy.
Gold Mines—Report on —. Price, Rupee 1.
Gurgun Oil and other Remedies—Report on the treatment of leprosy with—Selection No. 52. Price, Annas 8.
Irrigation Branch Administration Report for the year 1880-81, price, Rupees 1-4; for 1881-82, price, Rupees 1-4; for 1882-83, with maps, price, Rupees 6.
Jeypore—a collection and précis of papers about—. Price, Rupees 1-8.
Jails, Madras—Rules for the management and superintendence of—. Price, Rupees 3-8.
Kurnool Canal—Narratives with maps of the—(together with G.O. No. 371, dated 16th January 1884) and Madras Water-supply Project and Buckingham Canal (bound in marble). Price, Rupees 4-12.
Leprosy—Report on the treatment of—with gurgun-oil and other remedies, Selection No. 52. Price, Annas 8.
Lying-in Hospital—Report of—for 1878, 1879, and 1880. Each—Price, Annas 6.
Lunatic Asylums—Report on—in the Madras Presidency for 1875-76, 1876-77, each, price, Annas 8; for 1878-79, 1879-80, 1880-81, 1881-82, and 1882-83, each, price, Annas 12.
Madras Agricultural Exhibition Report, 1883. Price, Annas 8.
Madras Land Revenue—Report on—for fuslies 1284, 1285, 1286, 1287, 1288, 1289, 1290 and 1291. Each—Price, Rupees 6.
Madras Medical College—Report on—for 1875-76, price, Annas 12; for 1877-78, 1878-79, 1879-80, 1880-81, 1881-82, and 1882-83, each, price, Annas 12.
Madras Water-supply Project—Narratives with maps of the Kurnool canal (together with G.O. No. 371, dated 16th January 1884) and——and Buckingham Canal (bound in marble). Price, Rupees 4-12.
Neilgherry Loranthaceous parasitical plants destructive to exotic forest and fruit trees—Report on—, by Dr. Bidie. Price, Rupees 3-8.
Parlakimedy—Report on the disturbances in—, Vizagapatam and Goomsoor in 1832-36. In two volumes. Price, Rupees 5.
Productive Public Works—File of lists and maps of—. Price, Rupees 13.
Public Instruction—Report of Director of—for 1875-76, 1877-78, 1878-79, 1879-80, and 1880-81, each, price, Rupees 2; for 1881-82, price, Rupees 4-4.
Public Works Department—Classified List and Distribution Return of Establishment—, of the Government of Madras, corrected up to 31st December 1883 inclusive, price, Annas 12 a copy; corrected up to 30th June 1884 inclusive, price, Annas 12 a copy.
Public Works Department—Code of Regulations for the—with forms, &c. Price, Rupees 18.
Registration Department—Report of—for 1879-80, 1880-81, and 1882-83. Each—Price, Annas 14.
Rules of the Road at Sea—Abstract of the—in Tamil. Price, Rupee 1.
Standard Specifications in the Madras Presidency. Price, Annas 8 a copy.
Standard Appendices A to F to—. Price, Annas 8.
Statistics of Irrigation—Proceedings of Government embodying a résumé of the—in the Madras Presidency. Price, Rupees 1-4.
Survey and Settlement—Papers relating to the—for Trichinopoly. Price, Rupees 6.
Survey and Settlement—Papers relating to the—for Salem. Price, Rupees 3.
Tea Cultivation—Papers relating to—in Assam, Bengal, Selection No. 37. Price, Rupees 2.
Trade Returns for 1875-76, four volumes. Price, Rupees 25.
Trade Returns for 1876-77, four volumes. Price, Rupees 25.
Trade Returns for 1877-78, two volumes. Price, Rupees 25.
Trade Returns for 1879-80, 1880-81, 1881-82, and 1882-83. Each—Price, Rupees 10.
Works—File of—for which a continuous record of expenditure is kept. Price, Rupees 18.

the part of the author. The table at foot [2] shows a list of these publications to the present date, arranged in the order of the twenty-two districts. In their preparation it has been considered desirable to allow a considerable amount of individuality, the principal original instruction being to follow generally the pattern shown in the Vizagapatam and Madura Manuals. Mr. Sturrock's South Canara Manual and Mr. Logan's Malabar Manual now awaited should contain much interesting information regarding a remarkable section of this Presidency. Under the Imperial scheme for a "Statistical Survey" of the Indian Empire, Madras has no "District Accounts;" as it was considered undesirable to discontinue the District Manual series already in part completed, and unnecessary to have both the publications of this series and the District Accounts together. As however the Madras District Manuals were not sufficiently uniform to serve as material for the Imperial Gazetteer, in the same manner as the District Accounts, material for that publication was collected and supplied to the Government of India by a special officer who obtained his information from the Collectors of districts. In other provinces the District Accounts are bound together in one set of volumes for the province, such set of volumes being termed the "Statistical Account" of the province. It was at one time contemplated in this Presidency to publish an independent "Presidency Gazetteer" compiled from the District Manuals, which would answer to these Provincial Statistical Accounts. The want of uniformity in the manuals is however a bar to the plan. A list of Gazetteers hitherto published for this and other provinces, &c., as far as is ascertained, is given in the foot-note.[3]

[2] LIST OF DISTRICT MANUALS WITH THEIR AUTHORS, &C.

District.	Name of Editor.	Date of publication, &c.	Name of publisher, & price to the public
Anantapore	....	Included in Bellary.	
Arcot, North	Mr. A. F. Cox, C.S.	29th September 1881.	
Arcot, South	Mr. J. H. Garstin, C.S., C.I.E.	12th June 1878	Rupees 9.
Bellary	Mr. J. Kelsall, C.S.	20th November 1872.	
Canara, South ...	Mr. J. Sturrock, C.S.	In progress.	
Chingleput	Mr. C. S. Crole, C.S.	25th July 1879	„ 5
Coimbatore	Mr. F. A. Nicholson, C.S.	In progress.	
Cuddapah	Mr. J. D. B. Gribble, C.S. (retired) ...	5th November 1875 ...	„ 5.
Ganjam	Messrs. T. J. Maltby, C.S. (retired), and G. D. Leman, C.S.	17th June 1882	„ 5.
Godavery	Mr. H. Morris, C.S. (retired)	17th August 1878	„ 6.
Kistna	Mr. G. Mackenzie, C.S.	7th August 1883.	
Kurnool	M.R.Ry. N. Gopaulakristnamah Chetty ...	In progress.	
Madras	....	No manual ordered.	
Madura	Mr. J. H. Nelson, C.S.	26th April 1869.	
Neilgherries	Mr. H. B. Grigg, C.S.	6th September 1880.	
Malabar	Mr. W. Logan, C.S.	In progress.	
Nellore	Mr. J. A. C. Boswell, C.S. (deceased) ...	21st October 1871	„ 7.
Salem	Mr. H. LeFanu, C.S.	28th March 1883	„ 15.
Tanjore	M.R.Ry. T. Venkasawmy Row	27th November 1883.	
Tinnevelly	Mr. A. J. Stuart, C.S.	5th June 1880	„ 5.
Trichinopoly	Mr. L. Moore, C.S.	14th March 1879	„ 5.
Vizagapatam	Mr. D. F. Carmichael, C.S.	10th July 1868.	

[3] LIST OF GAZETTEERS OF DIFFERENT INDIAN PROVINCES, &C., HITHERTO PUBLISHED, AS FAR AS IS ASCERTAINED.

Province.	Number of volumes.	Date of the latest volume.	By whom published.
Ajmeer and Merwara	1	1875	Government.
Bengal and Agra	2	1842	Messrs. W. Rushton and Co.
Bicaneer State	1	1874	Government.
Bombay	23	1884	Do.
British Burmah	2	1879	Do.
Central Provinces	1	1868	Do.
Hyderabad and Berar	1	1870	Do.
India (Imperial Gazetteer)	9	1881	Do.
Kerowlee State	1	1874	Do.
Mysore and Coorg	3	1877	Do.
Nilwar	1	1878	Do.
North-Western Provinces	14	1884	Do.
Oudh	3	1874	Do.
Punjaub	29	1884	Do.
Rajpootana	3	1879	Do.
Rangoon and Pegu Provinces	1	1868	Do.
Scinde	1	1876	Do.
Southern India with Tennasserim Provinces and Singapore.	1	1855	Messrs. Pharoah and Co., Madras.
Territories of the East India Company ...	4	1854	E. Thornton, Esq.

A list of further publications which may be classed as semi-official are shown in the next foot-note.[4] Apart from semi-official publications the Madras Government have occasionally published at their own cost works which are more or less standard bearing on the arts, sciences, and professions, where it seemed that public interests demanded this support for the authors. An example is the History of Tinnevelly by Bishop Caldwell. Till recently there was a Government Book department [5] with depôts in various parts of the Presidency for the sale of its own educational publications, as well as that of educational books which it purchased for re-sale; these sale operations were however discontinued in March 1884, the business being taken up by the private society entitled the Madras Vernacular and School Book Society. Authors of books too numerous to mention have been assisted by the Government in the way of purchasing a considerable number of copies of their works, and distributing them for use to different offices. The Vernacular Book Publishing Society mentioned above was till lately subsidized by Government, but this has ceased. Particulars of the society may be seen in a foot-note under the article on Book Registration.

737. LIBRARIES.—Every Government office has more or less of a special library, suited for its own requirements. The Government occasionally distribute to them copies of works of which they happen to be in possession. Heads of offices are required to apply to Government to sanction the purchase of books, a list of their existing library being sent with the application for sanction and returned with the sanction. The charge is then debited to the contingent allowance of the office concerned, and the Accountant-General accepts this charge. The rules issued by the Government of India for regulating the purchase of books and newspapers or other periodical publications at the public expense are given in the foot-note.[6] The principal office libraries are the three libraries of the Govern-

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[4] LIST OF GOVERNMENT BOOK PUBLICATIONS OTHER THAN THE DISTRICT MANUALS, STILL IN PRINT.

Agricultural Primer by W. R. Robertson, M.R.A.C.
Amaravatti stupa—Notes on the—by James Burgess, LL.D., F.R.G.C., M.R.A.S., &c. Price, Rupees 5.
Archæological Survey of Southern India, Vols. I and II, by R. Sewell.
Chronological Tables, by R. Sewell. Price, Annas 8.
Dynasties of Southern India—Sketch of the—by R. Sewell. Price, Rupees 3-8.
Hygiene—Madras Manual of—by Dr. King.
Land Tenures and Land Assessments of Malabar.—Mr. Græme's Glossary of Words and Phrases relating to the—Price, Annas 14.
Madras Army—History of the—Vols. I, II & III, by Col. Wilson. Price, Rupees 6.
Routes in the Madras Presidency. Price, Rupees 7.
Theory of Strains—Treatise on the—by Colonel Rogers. Price, Rupees 7-8.
Sanscrit Manuscripts in Southern India—List of—Vol. I, by Dr. G. Oppert. Price, Rupees 6.
Sukranitisara. Vol. I, Text, Variæ Lectiones, by Dr. G. Oppert. Price, Rupees 3.

[5] SKETCH HISTORY OF THE GOVERNMENT BOOK DEPARTMENT.—The Government Book department, which supplied and distributed English and Vernacular books for the use of Government and other schools, was in operation for twenty years but closed in 1884. The agency consisted of a central depôt in Madras under charge of a curator, and subordinate to this depôt were 19 branch or district depôts at the principal up-country stations managed by local agents who were styled district curators. The curators were paid by a commission in addition to fixed salaries. Up to the year 1871 the whole cost of the Book department was included in the annual educational budget, but in the beginning of that year a change was made and salaries only were left to be provided for by the Educational department. The printing and purchase of books and other operations of the Book department were carried on by means of advances made by Government, who recouped themselves from the sale proceeds of books. This system was successfully worked for nearly nine years, and the department became fully self-supporting, leaving in fact a surplus after the payment of all charges including the salaries provided for in the educational budget. The selling prices of books were fixed on the following system. In the case of English books imported an addition of 20 to 25 per cent. was made to the published price. In the case of Indian books locally purchased, 10 per cent. was added to the published price, taking no account of the discount allowed by the publishers. With regard to books printed for the department, 25 per cent. was added to the cost price in the case of editions of new books, and this margin was worked up to 50 per cent. by reducing the cost of printing in the case of fresh editions of old books. The former charge included the amount paid to the author or compiler, while the latter secured a margin of profit without any addition to the price first fixed. In April 1881 the financial management was changed on the suggestion of the Comptroller-General that an Incorporated Book Depôt Fund should be constituted so that all receipts and charges might be taken to this fund, and the receipts paid in at any treasury to credit of the fund, thereby avoiding the necessity for the issue of transfer receipts for remittances to mofussil booksellers and printers as well as to district curators. In the same year the system of allowing a discount of 10 per cent. on wholesale purchases to the extent of Rupees 250 or more at a time was introduced to encourage private trade, and this system was afterwards extended to mofussil dealers to pave the way for the abolition of the district depôts. The process of abolition was gradually carried out and was completed on the 31st March 1883 in the case of district depôts. The central depôt was closed on the 31st March 1884, and the business of the Book department was thus transferred to private enterprise.

[6] RULES REGULATING PURCHASE OF BOOKS, &c.—*Application of Rules.*—These rules apply to books or newspapers purchased at the cost of the Imperial and Provincial Revenues and of Incorporated Local Funds, but not to those purchased on account of Excluded Local Funds. (2) *Sanction of Government.*—Books and newspapers or other periodical publications, whether published in or out of India, shall not be purchased or subscribed for at the public expense by any public officer without the previous sanction of the local Government, or, in the case of officers under the Government of India, of the department to which the officer is subordinate. (3) *Books for the Military Department.*—Books for regimental schools, regimental and prison libraries, and military officers, will, so far as the requisitions are in accordance with the rules in force in the Military department, be brought under the orders of the Government of India in the

ment Secretariat in its Public, Revenue, and Public Works departments; and those of the Adjutant-General, Director of Public Instruction, Superintendent of Surveys, and Surgeon-General with the Government of Madras. These libraries are recruited from time to time, by departmental reports and selections from records received from the several Indian Governments and Administrations, by Parliamentary Blue Books and other papers sent by the Secretary of State for India,[7] by books published or patronized officially as above mentioned, and by books purchased by the Government on occasion arising. The greater part of these operations take place in the Public Department. Among libraries belonging to educational institutions, which are in a greater or less degree official, are those of the Presidency College, containing 3,700 volumes, Civil Engineering College, containing 1,989 volumes, and Medical College in Madras, containing 7,898 volumes—5,882 volumes in the Professors' library and 2,016 in the Students' library; and the Combaconam, Rajahmundry, and Bellary Colleges in the mofussil. The public and scientific libraries attached to the Government Central Museum at Madras are mainly supported by the Government, but are open to the public, and in that capacity are much utilized. In 1861 the libraries at Hayleybury and the India Office having been amalgamated, there was a surplus collection of valuable books, amounting to about 10,000 volumes. A portion of this collection was received by the Madras Government in 1863 and handed over by them to the Museum to form the nucleus of a public library. It has largely increased since that date and now numbers 4,332 volumes. The aim has been to make it a general collection of all books, old and recent, bearing on the history, antiquities, religion, &c., of the people of Southern India, and of standard works of a national character of the same class. In addition to the works purchased out of the annual Government grant of Rs. 1,200, a large number of books are presented by the several Governments of India, the Secretary of State, the Master of the Rolls, and various scientific institutions. The scientific library of the Museum contains a valuable collection of scientific works and periodicals required for the conduct of work in the different sections of the Museum. It embraces many standard works, some of which are almost, if not wholly, out of print, and the collection has been systematic labor, extending over a number of years. The grant for the purchase of new works is

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Military department for the Bengal Army, and of the Governments of Madras and Bombay for the armies in those presidencies. (4) *Books for the Educational Department.*—Books for the Educational department should be obtained under the present rules and usage of the several local Governments concerned. (5) *Proof of Sanction.*—The officers of the Account department are enjoined to require proof of such sanction before admitting charges of this character. (6) *Supply of Books.*—Government does not undertake to supply books and newspapers indiscriminately, and supplies must be confined to what is found actually necessary for the public service independently of the desire of officers for improvement on subjects connected with their duties. Purchases of hand-books, manuals, practical guides, and the like should be rarely, if ever, made for executive officers, but mainly for officers charged, among other duties, with important deliberate duties of advising Government on special or important subjects. (7) *Legal Commentaries.*—Commentaries or annotations on Acts of the Legislature will in no case be supplied by Government. (8) *Directories.*—Directories and works of a cognate character can only be allowed under special circumstances where there may be evident inconvenience to the public service if they are not at hand for reference. (9) *Indian Official Publications.*—Official publications issued in India, such as the Postal Guide, the Civil Lists, the Codes of the Financial or Public Works Department, the Army Lists, &c., are to be supplied only under instructions from the Local Governments or departments of the Government of India. No payment should be required for books of this class. (10) *English Official Publications.*—Official publications (other than Parliamentary papers) published in England should be procured by the departments of the Government of India, and by the Local Governments and Administrations requiring them for their own use and for the use of the officers subordinate to them, by indents forwarded to the address of the Assistant Under Secretary of State for India; the revenues (Imperial, Provincial, or Local) to which the cost is chargeable, and, if Imperial, the head of account or grant to which it is debitable, being specified in the requisition. The following are not to be considered official publications:—Acts of Parliament (except Mutiny Acts, which the Secretary of State will supply); London Gazette; War Office Army List; British Postal Guide; British Code List; Royal Navy List. Mercantile Navy List. (11) *Parliamentary Papers.*—Parliamentary papers required for departments and officers elsewhere than in the Presidencies of Madras and Bombay will be supplied as published by the Secretary of State to the Home Department of the Government of India under the terms of his despatch No. 5, dated 13th January 1876. All communications regarding their distribution should be made to the Secretary to the Government of India in the Home Department. Parliamentary papers required by the Governments of Madras and Bombay should be obtained direct from the Secretary of State. (12) *Registration of Books.*—All books and periodicals procured for any office should be registered or filed, and must not be permanently removed from the office for which they were intended. (13) *Payments for Books.*—Payments for books, newspapers, and periodicals procured from abroad should by preference be made in India either through an agent or a bank on bills drawn by the supplier. When this is not practicable, the remittance should be made invariably through the local Accountant-General and the accounting officers of the Military and Public Works Departments, who should be responsible for the purchase of bills.

[7] LIST OF PARLIAMENTARY PAPERS SENT TO THE GOVERNMENT BY THE SECRETARY OF STATE.—Papers specially relating to India, under headings of (*a*) All subjects; (*b*) Sanitary measures. Mint, Coinage and Currency; Railways; Agriculture; Statistical Returns generally; Statistical Abstracts; United Kingdom, Colonies, and Foreign Countries; Trade and Navigation and Trade and Navigation Monthly Accounts; Commercial Reports; Merchant Shipping; Rule of the Road at Sea; Colonial Possessions; Criminal and Judicial Statistics; Law Reports; Prison Reports; Education, Civil Service Commissioner's Reports; Scientific Instruction; Meteorological Reports; Public Health; Local Government Board Reports; Local Government Medical Officer's Report; Registrar-General's Report; Lunacy Reports; Census and Population; Fisheries; Army Medical Reports and Health of the Navy; Factories and Workshops; Inspector's Report.

Rupees 600 per annum. The library of the Madras High Court contains a valuable collection of legal works. It is open to the legal profession and to the public generally on an order from one of the Registrars of the Court. The library of Oriental Manuscripts [8] at the Presidency College under charge of the Sanscrit Professor of that college contains 11,000 manuscripts, of which 6,500 are Sanscrit. This library is much frequented by pundits, who come to consult or copy the manuscripts, more frequently the latter. The most important library not belonging to Government is that of the Madras Literary and Auxiliary Royal Asiatic Society, located in the Old College, Nungumbaukum. It contains about 26,000 volumes. The society was founded in the year 1817 by Sir Thomas Newbolt, the then Chief Justice of Madras, and has therefore been in existence now for nearly 70 years. Its affairs are managed by a committee of twelve members elected at the general meeting held each year in the month of March or April. In addition to its members proper the society also extends the use of its library to the reading public at a low rate of subscription graduated according to the pay of the person concerned. The building is lent by Government, and as a branch of the Royal Asiatic Society in London the society receives a variety of books from Government. It has published a journal or literary magazine. The first series of the journal was begun in October 1833 and brought to a conclusion in June 1851, and consists of 39 numbers. The second series began in October 1856 and ended in December 1861 and consists of 12 numbers. The third series published in July 1864 and October 1866 contains 2 numbers. The fourth series of the journal comprises an annual publication for the years 1878, 1879, 1880, and 1881. The Neilgherry Library at Ootacamund was founded in 1859, and contains about 10,500 volumes. In 1860 Government made over to the committee of the library the public bungalow at Ootacamund with the ground on which it stood, and the museum at Ootacamund was transferred to the charge of the committee with the allowance of Rupees 100 hitherto granted to the museum which was to be appropriated for the joint expenses of the united institution. This allowance was granted from the 1st June 1860 and discontinued from the 1st July 1875. The house given by Government was rebuilt by the committee. The library is now a non-commercial joint stock company, having been registered on the 4th January 1878 under India Act XXI of 1860, which provides for the registration of societies or companies established for the promotion of literature, science or the fine arts, or for the diffusion of useful knowledge, or for charitable purposes. The institution is managed by a president and twelve members, one of whom is appointed by Government. The president and eleven committee-men are elected annually by the members. The Mahomedan Public Library at Triplicane, Madras, was established in 1850 by the Mahomedan inhabitants of Madras. The late Nawab of the Carnatic gave a donation of Rupees 700 and a monthly subscription of Rupees 35, and books were received from the Governments of Madras, Bombay, and Agra and the Pashah of Egypt. When the Madrissa-i-Auzum was taken under the management of Government in 1859, the monthly allowance of Rupees 35 was continued to the library by Government from the amount granted by the late Nawab of the Carnatic for the expenditure of the Madrissa-i-Auzum. The library is managed by a committee consisting of a president, ten members, and a secretary. The Public Library at Cochin received a grant of Rupees 50 per mensem from 1868 to 1876. Various other libraries have been helped from time to time.

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[8] SKETCH HISTORY OF THE MADRAS LIBRARY OF ORIENTAL MANUSCRIPTS.—The Library of Oriental Manuscripts originally formed part of the museum of the Madras Literary Society. It was transferred to the Old College and placed in charge of the Board of Examiners. In 1867 the library was transferred to the Director of Public Instruction. In 1868 the Professor of Sanscrit in the Presidency College was directed to carry out certain orders issued by the Government of India in regard to the discovery and preservation of the records of ancient Sanscrit literature. He was to take such measures as might be necessary for commencing the printing of all procurable unprinted lists of Sanscrit manuscripts in the native libraries. He was also to arrange for the examination of the manuscripts named in the native catalogues as above described, for the discovery of new manuscripts, for their purchase, and for the employment of copyists to transcribe codices which were unique, extremely old, or otherwise desirable, but which the possessors refused to sell. He was to make occasional short tours for these objects and was to take advantage of every opportunity of inquiring for and procuring any ancient manuscripts in the vernacular languages which he might consider to be of historical or literary value. The Oriental MSS. Library was in 1860 placed in charge of the Professor of Sanscrit in the Presidency College. In 1873 the Professor of Sanscrit was appointed Curator with an allowance of Rupees 100 per mensem. The first volume of the lists of Sanscrit manuscripts in private libraries in Southern India has been published. It contains a description of 8,376 manuscripts. A second volume, which contains the names of over 9,000 manuscripts, is in the press, and will soon be issued.

738. SPELLING FROM THE VERNACULARS.—In the transcription of vernacular words in English documents,[9] there are as is well known two different styles or systems, and the Presidency is in a state of transition from one to the other. The

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[9] SKETCH HISTORY OF MEASURES FOR REPRODUCING IN ROMAN LETTERS VERNACULAR INDIAN WORDS.—*Introduction.*—The necessity for adopting some system with a view to securing uniformity in this matter has been apparent for a long period, and the necessity has increased with the extended use of the English language among the natives of the country themselves. The chief reason for introducing into India a special Roman alphabet differing from that which belongs to the English language, if as seems probable that is the result which will be finally arrived at, will be more of a political than of a literary nature. An examination of the literature which has grown up on the subject shows that the prevailing motives which have regulated the steps already taken are rather those of presenting India with the best available means of rendering the country homogeneous in the important particular of language, than those of merely satisfying technical claims of philology. (2) *Early phoneticism.*—At the beginning of the British occupation of India, the vernacular characters were not read by Europeans. Hence vernacular words could only be transcribed by the English by copying the sound into the English letters which seemed most nearly to represent them. "Sir Roger Dowler" for Siraj ood dowlah, and "Isle of Bats" for Allahabad, have been quoted as instances. These are vulgarisms, caricaturing the method; however the method was as there shown purely phonetic. The Greeks and Romans had the same method throughout their history for writing Teutonic and Asiatic words. Such words as Leghorn and Naples in English, and Écosse and Galles in French, are extreme modern examples of the same process. A publication called the "Institutes of Timour" by White issued in 1784 is said to have employed on system an entirely phonetic scheme for transcribing vernacular words; the method being advised by Major Davy, an officer who had studied Persian in this country. The details are not to hand, and it is not understood in what way an absolutely phonetic method was reduced to a written system. (3) *Change to transliteration.*—As opposed to the phonetic method which transcribes by ear is the transliterative method which consults the original vernacular written character and transcribes from that. The latter must have been more or less the method of the great majority of educated Europeans from the earliest period of literary activity in India. Spelling by ear has developed certain conventional forms which have since been retained. In some of the niceties of language where literal transcription would confuse the reader, that has been abandoned. But with these exceptions vernacular spellings in the Roman alphabet have been transliterative, that is to say from the written character, for the last century. Under these circumstances the nomenclature which has been used to designate the rival principles operating in the subject have not been well-chosen, and a confusion of idea has arisen which has continued to the present day. Gilchrist's method hereafter to be mentioned has been called phonetic, and the Jonesian method has been called transliterative. The real antagonism however between these two typical systems lies in the fact that the aim of one is to solve the problem while following the genius of the English language, and in the other English principles are put on one side and those of continental nations are adopted. The acrimony which has been noticeable in the discussions of the last century arises out of this antagonism, and not out of any divergence in the literary methods. Gilchrist's and Jones' systems are both essentially transliterative, and the former is merely specially favorable to phoneticism as an incident of the general system. (4) *Halhed's transliteration.*—The subject of Roman transliteration first arose in Northern India. The first writer who accurately gave to the public the Nagaree, Devanagaree, and Bengalee alphabet was Mr. Halhed in the preface to his version of the Code of Hindoo Law, compiled under the orders of Warren Hastings in 1775. His consonants corresponded very nearly with those of Sir William Jones' alphabet next to be mentioned, except that he made no distinction between the hard and soft *d*, *t*, *d'h* and *t'h*. The short vowel अ he wrote with a short *e*; the letter इ with a double *ĕe*, bearing similarly the short mark; ए was expressed by *āe*. ई he wrote í; and औ *ōu*. Every vowel according to this system had its long or short mark above it, which was very inconvenient whether for printing or writing. (5) *Sir William Jones' transliteration.*—Sir William Jones, not satisfied with the system of Mr. Halhed, devised the alphabet which bears his name. See the paper "A Dissertation on the Orthography of Asiatic Words in Roman Letters, by the President, 1788": in the "Researches of the Asiatic Society of Bengal," Vol. I; also in the collected works of Sir William Jones, I, p. 176. He provided for all the sounds used in Sanscrit, Arabic, Persian, and Hindee. He discarded the system, by which the pronunciation of Asiatic names was to be shown by English letters, because there were no consistent rules of orthography in English, and every vowel might be used to articulate one and the same sound. He gave the following sentence as an example—"A mother bird flutters over her young;" in which every vowel and the diphthong *ou* have the sound of *u* in *but*. He therefore decided to use the Roman or Italian sounds of vowels. This system was adhered to by Colebrooke and Wilkins. It prevails in the "Asiatic Researches," in the "Journal of the Asiatic Society of Bengal," and in the "Journal of the Royal Asiatic Society." It was adopted by Rottler in his Tamul dictionary, by Campbell in his Teloogoo dictionary, and by Shakespeare in his Hindostany dictionary. (6) *Dr. Gilchrist's transliteration.*—Dr. John Borthwick Gilchrist soon afterwards became the advocate of a system based on English powers of vowels, differing considerably in its details from Halhed's. He used the short *u* instead of *a* for the silent unexpressed inherent letter of the languages of India, and retained the English *oo* instead of the continental *u* of Jones. He also discarded the continental *au* of Jones (for *ow* in *how*) and substituted *ou* in its place. Dr. Gilchrist's plan became more popular than Sir William Jones'. In fact in its essential features it continued existing practice. His principal works are—"A Grammar of the Hindostany Language, or Part I of Vol. I of a System of Hindostany Philology," by John Gilchrist (Calcutta, 1796); and "Hindostany Philology, comprising a dictionary, English and Hindostany, with a grammatical introduction," by John Borthwick Gilchrist, LL.D., Hindostany Professor in the College of Fort William (London 1810, again 1835). (7) *Tabulation of these three systems.*—The following table exhibits the vowel transliterations of the three systems just mentioned in one view. It is not difficult even thus on cursory inspection to pronounce on their respective merits. Halhed's system was clumsy, and need scarcely be considered. Jones' system was perfectly symmetrical; but it had the disadvantage of being composed of un-English, indeed anti-English, materials. Gilchrist's system was only a rough transliteration; on the other hand it had the merit of being in accordance with English nationality:—

Halhed.	Jones.	Gilchrist.	English equivalents.
ĕ	a	u	As *a* in *about*, or *u* in *up*.
a	á	a	As the interjection *ah*.
e	e	e	As *ey* in *grey*.
ĕe	i	i	As *i* in *pin*.
ēe	í	ee	As *ee* in *meet*.
o	o	o	As *o* in *note*.
ŏo	u	oo	As *oo* in *good*.
ōo	ú	oo	As *oo* in *moon*.
ai	ai	y	As *ei* in *height*.
ou	au	ou	As *ow* in *cow*.

(8) *Controversies regarding the Jonesian and Gilchrist systems.*—The names of Jones and Gilchrist became the watchwords of two rival systems or rather principles; and those who followed them maintained for thirty years a

traditional style employs the English powers of vowels, and to a certain extent applies the phonetic principle. Its characteristics are analysed in Vol. II, App. XXI. It has a firmer footing probably in this Presidency than in other parts of India;

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lengthened discussion, while much confusion prevailed in the spelling of the general public. Except among the learned, there was a decided leaning from the first in favour of Gilchrist's system. The Asiatic Society endeavoured to push the Jonesian system, but the Government followed the other. In 1834 a controversy arose as to the general question of employing Roman alphabets. Mr. Thompson, a missionary at Delhi, had written an English and Oordoo dictionary in Roman characters, which Dr. Yates, another missionary, recommended to the Calcutta School Book Society. Mr. H. T. Prinsep objected to the innovation, while Dr. Duff defended it. Sir Charles Trevelyan, then a young civilian, strenuously supported the publication of vernacular books in the Roman character. He obtained the assistance of four missionaries, Messrs. Duff, Yates, Pearce, and Thomas, for the purpose of printing and circulating such books, and fifty-seven had been published by the end of 1836. Meanwhile a controversy was carried on between Sir Charles Trevelyan and Mr. H. T. Prinsep as to the merits of the rival systems of transliteration, the latter maintaining the superiority of the system of Dr. Gilchrist. Mr. Prinsep said that the system of Sir William Jones was a style of writing to be reverenced and respected, but not imitated; and that it should be reserved for recondite science. Mr. Trevelyan replied that the phonetic system of Dr. Gilchrist was not a system of orthography, but of cacography; or of confusion, mystification, and absurdity. While such was, he maintained, the plan of Gilchrist, the system of Sir William Jones, after having completely stood the test of learned criticism, after having gone through a probationary period of sixty years, and approved itself to the great body of scientific men throughout the world, was at last claimed for general use. It was true, as Mr. Prinsep has urged, that it had long remained unused except by scholars; but that was no reason why it should continue to be so. "The jewel," he declared, "must no "longer remain shut up in a casket, but must be brought forth to shine in the face of day. The money must no longer "remain hoarded in the treasury, but must now pass into circulation." Mr. Trevelyan returned to England in 1838 and published his work on the education of the people of India; but the four gentlemen who had been allied with him continued their labours, and in 1857 it was reported that the Roman character, with the Jonesian system, was universally used by the missionaries in the Upper Provinces. In 1845 Mr. Crow, a Deputy Collector, published an ingenious treatise on the best mode of writing oriental words, in which he advocated a system akin to the Jonesian. But in the same year Sir Henry Elliot published a work in which "he conformed to the system of Gilchrist, or rather to that "modification of it in use in our Revenue Survey, which certainly has the merit of enabling an Englishman to pronounce "a word in such a manner as to make it easily comprehended by the natives of Hindostan; while Sir William Jones' "system is better suited to the learned." Molesworth also adopted the system of Dr. Gilchrist in his Mahratty dictionary. When Professor H. H. Wilson published his "Glossary of Indian Terms," he adopted the system of Sir William Jones throughout, discussing the whole question in his preface; and he gave equivalents in Roman characters for every letter in nine alphabets used in India. A key however was provided at the end of the book, in which popular spellings were given, with a reference to the equivalent scientific form in the body of the work. In 1858 the controversy broke out afresh and was carried on with some spirit in the "Times" and other English newspapers; with Sir Charles Trevelyan, under the signature of Indophilus and Mr. Monier Williams on one side, and Professor Garrett on the other. Sir Charles Trevelyan became Governor of Madras in the same year and endeavoured to introduce the Jonesian system there in official correspondence: but without effect, as will be seen later on. The Jonesian system also found an advocate in Mr. Eastwick, who edited Murray's Handbooks for India in 1859; and Keith Johnston adopted it for the maps of India in his atlas published in 1861. It was also adopted by Mr. Thomas in his system of transliteration and application of diacritic marks to English type in the "History of India by its own Historians;" and it is explained in a pamphlet issued by the Philological Committee of the Asiatic Society of Bengal. The Syndicate of the University of Calcutta, in 1859, published a key to Professor H. H. Wilson's system of transliteration as modified by that body. In this pamphlet it was observed that a general disregard of all fixed rules of spelling prevailed; and it was hoped that the adoption of a fixed system by the Calcutta University and the Education Department in Bengal would have the effect of gradually securing a general uniformity of spelling throughout the country in public documents and in literary productions. This key gave a complete and an optional form of Roman equivalents to be used for the letters of the Sanscrit, Bengalee, and Arabic alphabets. Every Indian letter must, in accordance with the rule of Sir William Jones, be represented by its fixed Roman equivalent. The vowels were to have powers as in Italian, but not as in English; diacritical marks attached to consonants might at option be omitted in writing proper names; accents on long vowels must invariably be inserted. But the English system, first advocated by Gilchrist, in spite of these endeavours made against it, continued to maintain its ground with the public; and even among literary men to have powerful supporters, chief among whom were Mr. Marshman and Colonel Meadows Taylor. The latter observed that the English language possessed phonetic equivalents for all sounds in Indian proper names, and drew up and submitted to the Secretary of State a set of simple rules in illustration. It is to be observed however that Colonel Meadows Taylor's rules make free use of the acute accent, which is not an English device; they are consequently of the nature of a compromise. The last book requiring notice in this connection is "Remarks on the Orthography of Indian Geographical Names, with especial reference to the proposed new Indian Gazetteer," by the Rev. T. Barton, M.A., late Principal of the Cathedral Mission College, Calcutta (Stanford, 1871). Mr. Barton deprecated the notion that the claim of linguistic science and the necessities of popular usage were so opposed to one another as to be altogether irreconcilable. He proposed that in a gazetteer or other similar work the scientific spelling should follow the popular one in each case in brackets. He thought that the requirements of popular utility might thus be reconciled with the claims of science. (9) *The Madras Literary Society's Sub-Committee of* 1859.—In 1859 the Madras Literary Society, which is an auxiliary of the Asiatic Society, took up this question from the point of view of the Jonesian system. They appointed a sub-committee to report on the best method for applying that system to the vernaculars of the Madras Presidency. As their report is the first and last paper on the subject, it will here be abstracted with some fulness. (10) *Their general principles.*—The sub-committee defined their own aim, as that of "laying down a scheme of orthography which should "provide for the exact representation of every word occurring in the languages of India, under conditions at once easy of "application and so exact, as to enable persons acquainted with the original tongue, to reproduce words written accord-"ing to it in their native characters." More particularly they said that they desired to submit a system of notation, in which "each original (represented) sound should be rendered invariably by one appropriated symbol, conformably "to the natural order of articulation, and with a due regard to the primitive power of the Roman alphabet, which "modern Europe has in general adopted." For the accomplishment of these ends, they prescribed to themselves the following fundamental rules:—"*a.*" That a distinct Roman character should, as far as practicable, be employed to express each established oriental letter, in other words that an oriental letter should have only one Roman equivalent, "*b.*" That the same character should always represent the same letter, and should never be employed without some distinguishing sign to designate a second; in other words that an oriental letter should have not less than one Roman equivalent assigned to it, should not share a Roman equivalent with some other oriental letter. "*c.*" That two or more letters should never be employed where a single character could be made to suffice. "*d.*" That diacritical marks should only be resorted to in the last necessity, and should be of the simplest description. "*e.*" That varieties of type, as capitals, italics, black letter, should be considered inadmissible. The propriety of the three first stipulations is manifest where they are practicable, and needs no illustration. The two next were dictated by the difficulty of using the modifications there mentioned in current writing, to say nothing of their unsightly and perplexing appearance. (11) *Their views regarding various schemes.*—The modifications which had been proposed in Sir W. Jones' orthography since its first promulgation, and which related chiefly to the mode of representing certain consonants, were examined by the sub-committee. Among these the most important were the alphabet adopted by the missionaries of Upper India in numerous works printed and published; that employed by Shakespeare in his Hindostany Dictionary, 3rd

this Presidency having been the scene of the earliest English occupation, and also for reasons connected with the nature of the Dravidian languages themselves. The new style employs the Italian powers of vowels, and is more exclusively translitera-

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edition, 1834; and that prefixed by Professor Wilson to his Glossary of Indian Terms, 1856,—the last of which exhibited the first attempt to elaborate a scheme embracing all the languages of India. There were also to be considered the modifications observed in the published works of German and French philologists. The Missionary alphabet of Bengal, which had only been applied to Oordoo, was held to be inapplicable, because it sacrificed critical accuracy to simplicity. The letters ه and ح were both represented by *h*—ز ذ ض and ظ were all included under *z*—ث س and ص under *s*. The principle of strict transliteration was thus abandoned. The plan proposed by Shakespeare was free from this defect, but was also confined to the Oordoo dialect in its Arabic and Devanagaree forms. In the opposite direction from the Missionary alphabet, it contained redundancies, providing for distinctions of sound not expressed by corresponding letters, but to be acquired by practice, and therefore considered by the sub-committee unnecessary in a scheme of strict transliteration. There were also some minor blemishes in his mode of dealing with *ch*, *ch'h*, *gh*, *kh*, *ksh*. Professor Wilson's scheme was complete in its requirements, but cumbrous in the mode by which he had carried them out. Thus, five of the six characters for *n* were represented by infra-linear diacritical marks, of which the first was an open dot, and the rest points increasing in number from one to four. The three z's and three s's were similarly distinguished. Such complications are perplexing in type and unsuited to cursive writing. (12) *Their views regarding diacritical marks for consonants.*—On a general comparison of the details of Sir W. Jones' scheme and the three just enumerated, it appeared that the mode of designating the vowels was nearly the same in all; and that as to the consonants, while Sir W. Jones adopted a system of supra-linear marks to distinguish them, his followers had substituted various infra-linear signs differing only in the greater or less simplicity of their application. This introduced the question of the position of the diacritical mark. If a printer is asked, whether with an ordinary fount of types it is easier to add diacritical marks above or below the line, he will give the preference to the former and to those of the simplest description only. The use of accentual signs above the line is of ordinary occurrence in every press. Hence the original scheme proposed by Sir W. Jones possessed this advantage of facility of application. It appeared to the sub-committee that a combination of both systems, the supra-linear and the infra-linear, would be found to afford the best means of securing perspicuity of notation with easy application. (13) *Their proposals regarding the Devanagaree alphabet.*—The sub-committee then proceeded to examine the Devanagaree or Sanscrit alphabet. There is a class of letters in the Nagaree alphabet, commonly denominated cerebral. This rendering of the Sanscrit grammatical term (múrddhanya), from (múrddhan), "the head," has been objected to, and the word lingual proposed instead. The "cacuminal," has also been proposed. The sub-committee recommended that this class of letters should be indicated by a single diacritical point below each letter. The expedient adopted by Sir W. Jones to indicate aspirated consonants by the apostrophe used to signify the soft breathing of the Greek alphabet, and to some extent recognized in the Roman, appeared to be peculiarly appropriate. It was first devised by Halhed, who placed it at the bottom of the line, in which he was followed by Gilchrist. Sir W. Jones removed it to the top. Klaproth and Bopp applied it to the same purpose, omitting the *h* and reversing the comma. Although the Jonesian application had not been so generally employed as it seemed to deserve, the sub-committee recommended its adoption on the grounds of fitness, perspicuity, and easy application. It set free the similar characters used to represent خ and غ with the addition of diacritical marks, and obviated the possibility of mistaking the sound of the aspirates themselves, especially in the familiar English pronunciation of *th*, *ph*, *ch*, &c. The strong aspirate at the close of syllables in Sanscrit words, called visarga, might be represented by a similar device, or the spiritus asper might be substituted, as *'h*. This could never occasion confusion as the visarga always follows a vowel. Of the Nagaree sibilants, the only one calling for consideration was the first—or श often inaccurately confounded with the second, or ष, and even with the third, or स. This class of consonants in the notation here proposed was to be expressed by acute accents above them, to denote an aversion of the tongue towards the palate, whence the letter is called the palatine sa. In the same manner might be noted the sád of the Arabs and Hebrews, which last it resembles in shape, and probably resembled in sound. The nasals were five in number. Thus "*a*," the anooswara, signified by a dot above the line, and therefore most fitly represented by a Roman ṅ with a similar mark. "*b*." For the guttural *n*, or that pertaining to the first class of Nagaree letters, a compound or double symbol might with propriety be adopted. Its sound is exactly that of the letters *ng* in sing, long, &c., and these letters therefore seem to present the fittest substitute. Sir W. Jones objects to the addition of the *g*, on the ground that it might create confusion, and often suggest the idea of a different syllable. This difficulty might be overcome by tying *the two letters with an infra-linear line, but such complicated signs* were objectionable in themselves, and were moreover prescribed by the third rule. *The line below the n alone might* therefore be retained as the characteristic of this sound. Sir W. Jones, viewing it as identical with anooswara, employed the same mark for both, but in doing so, transgressed the fundamental rule which requires exact transliteration. "*c*." *and* "*d*." The palatal and cerebral ens should, by analogy, follow the rule already provided in such cases, the former being represented by an accent above, the latter by a point below, the line. But as the sound of the first is exactly identical with that of the Spanish *ñ* and Portuguese *nh*, and provision had to be made for another more purely palatal *n* in the Tamul ண, it seemed advisable to adopt the Spanish *ñ* which presents a familiar representation of the exact power of the Sanscrit letter, and thus to leave the palatal symbol available for the Tamul *n* or ண. "*e*." The last or simple *n*, needed no distinguishing sign. The Sanscrit alphabet concludes with a character expressing a sound compounded of *k*, *s*, and *h*, which it has been usual to represent by these three letters in sequence. Others had employed the Roman *x* for the same purpose, and considering that this letter was also a compound of *k* and *s*, and was not otherwise required, the sub-committee recommended that it should be appropriated to that sound. The conclusions thus arrived at for the Devanagaree alphabet will be found with very small variation embodied in the table at Vol. II, App. XXIV. (14) *Their proposals regarding the Dravidian alphabets.*—Considering the peculiar character (see Vol. II, App. XXVII) of at least two of the Dravidian alphabets, the Tamul and the Malayalam, and the fact that the Dravidian languages are exclusively the languages of this Presidency, the sub-committee's remarks under this head are scarcely on a par with the subject. However, as above stated, the report forms the first and the last published document on the subject, and its conclusions will be here arranged in the best practicable way. Many of the Tamul and some of the Teloogoo letters are liable to changes of sound with reference to their position or to their derivation from Sanscrit, and the sub-committee began by discussing the propriety of providing distinct Roman equivalents for such sounds. They came to the conclusion that it was unnecessary, in a system of strict transliteration, to provide more symbols for a letter, however variable in sound, than the people possessed themselves. In using a romanized character, such anomalies must therefore be learnt by practice; as they are at present mastered by the natives themselves, who employ the vernacular characters under precisely similar circumstances. The only exception which appeared necessary was in the reduplicated Tamul sounds of ற, ட and ற or *d*, *ḍ* and *r̀* which become *tt*, *ṭṭ* and *t̀t̀*, and this had long received the sanction of general usage. These were therefore admitted. The sub-committee stated that they had also adopted the rule which gave the normal sound of the Devanagaree characters to words adopted into Tamul, and had represented them by their corresponding Roman letters. Beyond this bare statement, the sub-committee did not indicate how the principle was to be applied; it will be found in practice a considerable difficulty. The Teloogoo and Canarese people have taken the Nagaree letters under altered forms, and the Nagaree alphabetic system more or less intact, to answer their own purposes. The sub-committee proposed for these therefore the mere application of the conclusions already arrived at for Nagaree. The same is a less degree for Malayalam. The Tamul alphabet is so diverse from the Nagaree that it should have been treated separately and as a whole. However the sub-committee treated it merely as showing so many variations in detail from the general scheme. The arrangement for reduplicated Tamul

tive. A complete transliteration table under this system, based on the report of a committee which considered the subject in 1858-59, will be found in Vol. II, App. XXIV. The strictness of the transliteration compels the use of numerous diacriti-

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sounds has already been mentioned. The sub-committee further remarked that there were seven letters entirely peculiar to the Dravidian dialects, which were probably once common to all, but the whole of which were found in Tamul alone at the present day. These were எ ஒ ள ற ழ ன and ஃ or ஃ. Of these, the three first only had been retained in Teloogoo and Canarese, and the five first in Malayalam. The two last were confined to Tamul. The two vowels are simply the short sounds of *e* and *o*, and as the corresponding Sanscrit vowels are always long and are so marked by an accent, they could be written merely by e and o. The Tamul ள, Malayalam ള, and Teloogoo and Canarese ళ was not unknown to the Nagaree alphabet, and was still found in the older Sanscrit of the Vedas, but it had fallen into disuse. It came under the head of cerebral sounds and was therefore properly represented by *ḷ* with the mark assigned to that class. The Tamul ற or Malayalam റ had the force of a prolonged palatal *r*, of which the Hindee ڑ seemed to be the Oordoo equivalent. In its reduplicated form it became *tt* and would be rightly typified by these corresponding letters with the palatal sign—or *ȓ* and *ṫṫ*. The next letter ழ, which was confined to Tamul and Malayalam, might be termed the 'vexata litera' of the Dravidian, as ع was of the Semitic tongues. For the difficulties which impede the appropriate rendering of this sound reference may now be made to Vol. II, App. XXVIII. The various expedients which have been proposed by different writers resolve themselves into a choice between *r* and *l*, if a single letter is employed; or *zh* if a compound character is admissible. The sub-committee observed that two of the highest authorities in Tamul literature, Dr. Caldwell and Dr. Pope, had pronounced the letter on philological grounds to be a form of *r*; but general use and analogy were in favor of considering it a cerebral *l*. The sub-committee therefore resolved to adopt the latter. There being already two *l's*, the proper diacritical mark would be a point above, but this being unsuited to the shape of *l*, they resolved to recommend a line below, or l̲. In the present work it will be observed that *zh* has been adopted. The Tamul ன seemed to differ in no wise from the ordinary *n* fully enunciated as a palatal sound. It should therefore be noted as *ȓn*. The last letter or ஃ was the equivalent of the Arabic خ, and should be represented by *kh*. The proposals here made for Tamul would amount roughly to what is shown at Vol. II, App. XXIV, if the greater number of the exceptions given in the note thereto appended were withdrawn. க, ச, த, ப may be read respectively as *k* and *g*—*s* and *ch*—*t* and *d*—*p* and *b*; depending on the position of the particular letter in relation to others. No provision is made by the sub-committee for these variations. Had they given examples of, or even tabulated, their results, the impossibility of transliterating Tamul in this way would have been apparent. The words would have appeared in such an anti-phonetic guise as plainly to run counter to common sense, and would have condemned the proposals. Considering that Tamul is the most important language of the Presidency, this is a very serious omission or oversight. It is scarcely too much to say that it has left the whole question of transliteration on the Jonesian system for this Presidency an undecided point, in spite of the laborious nature of their report. (15) *Results of their report.*—This report was put out in a form which would have almost denied it any currency, whatever its intrinsic merits. The only tabulation it contains is that of the Sanscrit alphabet, which though it may be the basis of others does not represent immediate practical requirements. The treatment of the Dravidian languages, the real languages of this Presidency, is only to be gathered from some detached and not very clear paragraphs. That the Tamul question has not been actually met has been stated above. Considering the difficulty of the whole subject, a less satisfactorily framed document viewed as a practical key to the situation could hardly be desired. Nor are the results much more free from objection, even if they had been offered in an intelligible form. The framers of the report were evidently not conscious of any pedantry in their proposals, and considered that they had offered something adapted to general use. The Literary Society, in forwarding their sub-committee's report, speak of it simply as a "scheme," as if it were something complete and ready for use; and recommend its immediate adoption by all public officers whenever a word is introduced into writing which is not strictly English. When it is considered that at this time in Southern India scarcely any one except a few savants knew of the existence of a method of writing vernacular words other than the traditional English method, and that in this scheme which was offered for immediate and universal adoption the whole vowel system of the English language was subverted and every second letter was weighted with a diacritical mark, at that time to officials and the public a complete novelty; it must be admitted that the proposals were eminently ill-considered. Even with the assistance of the Government, which as will be mentioned later on they obtained no notice was taken of the scheme. It died a natural death almost as soon as it appeared. There has been no subsequent examination of the subject in Southern India. (16) *Official measures in other provinces down to* 1868.—Official measures in other parts of India contemporaneous with the above discussions and schemes may be thus briefly stated. In 1820 the Bengal Government ordered an accurate record to be made in English of the land tenures, and uniformity became an important object. Dr. Gilchrist's scheme, in a simplified form, was then adopted, and the same system was used for maps and revenue survey records. Different record committees succeeded in reforming the orthography of names of places on this system, and it continued to be that of official correspondence in Bengal for many years. In the directions for revenue officers in the North-West Provinces, published in 1849, they are instructed to convert Oordoo and Hindee words into English according to an alphabet there given. This alphabet has the double *oo* and *ee* and the initial *U* for the Jonesian *A*. It is, therefore, on the Gilchristian system and in the same scheme as that adopted by the Record Committee in 1820. It is recommended as "that which an Englishman would naturally adopt, " without aiming at great refinement or accuracy." Roughly speaking the system of Dr. Gilchrist was the one that enjoyed general official sanction throughout India down to the year 1868. (17) *Official measures in other provinces subsequent to* 1868.—In 1868 the Bombay Geographical Society made proposals to the Government of India for the preparation of a Vernacular and English index of Indian geographical names. The Government of India therefore invited aid from the local Governments in the preparation of such an index, and suggested the adoption of a uniform system of transliteration, at the same time drawing attention to Professor Wilson's modification of Sir William Jones' system. This work was not carried out. Dr. W. W. Hunter of the Bengal Civil Service, was appointed in 1869 to compile the Gazetteer of Bengal, and he was instructed to secure uniformity of spelling in the preparation of the other gazetteers at that time projected throughout India, the system of Professor Wilson being again recommended as a model. Dr. Hunter submitted a plan in which he recommended arrangements of the nature of a compromise. The scientific details of Professor Wilson were allowed to be too elaborate for general use. Diacritical marks therefore other than the acute accent were omitted. A number of accents were discarded which though properly belonging to the word were not considered necessary for purposes of pronunciation. Various other measures of compromise in the transliteration were adopted. A certain freedom was also to be allowed in spelling names which were familiar to the public, or had become historical, in a form based on a different system. Nevertheless, Dr. Hunter adopted the Jonesian or continental system of vowels without abatement. It is evident that this is not real transliteration, and that it gives a certain amount of play to phonetic considerations. But it is an approximation to transliteration. The difficulties in the way of thorough transliteration as applied to Indian names are described by Dr. Hunter in the note preceding his guide to the orthography of Indian Proper Names (1871), and in the preface to his Imperial Gazetteer (1881). In 1870 the Government of India approved, as he then formulated them, Dr. Hunter's plans for the spelling of the gazetteers. In 1872 the Secretary of State endorsed the measure, but suggested "that some extension should be given to that part " of the scheme which permits a departure from the new system, in the case of those places of which the names have " acquired a widely-recognized mode of spelling either from popular custom or in consequence of historical notoriety." Subsequently to this, the gazetteers of various provinces proceeded with the spelling of the geographical names conducted on Dr. Hunter's principles. Lists were also called for from the provinces showing names of principal

cal marks, and the table is therefore unsuitable for practical use. It is of service however as a standard. An analysis of the most simple transliteration under this style will be found in Vol. II, App. XXII; and Vol. II, App. XXIII, gives the same results in tabular form and as used for the purposes of this work. The Tamul, which is the principal language of this Presidency, does not lend itself to transliteration; the powers of the letters varying almost as much as they do in English. See the notes in Vol. II, App. XXVII. The portion of the table at Vol. II, App. XXIII, which relates to Tamul is therefore very imperfect. It is only offered as the best suggestion which seems practicable under the circumstances. In 1877 the Government authorized the spelling on the new system of 35 vernacular geographical names in frequent use in the Military department, and in 1879 that of 837 similar names in frequent use in the Revenue department. The Registration, Survey, and Archæological departments employ, though under no

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geographical places transliterated in the same way. It is not known that any province has adopted measures for introducing continental spelling as a general system applicable to all classes of vernacular words; though that is evidently the only goal that can be logically aimed at, and the difficulties of a mixed style must meanwhile prevail. (18) *Official measures in this Presidency.*—The failure of the Madras Literary Society's proposals for a sudden conversion of the spelling style of the Presidency has been described above. The Government under Sir Charles Trevelyan endeavoured in the same year, 1859, by contracting those proposals to put them into orders and change the official style; but even the Government orders were too sweeping, and it was found impracticable to act upon them. They were never enforced. This Presidency having produced no gazetteer, the introduction of Dr. Hunter's plans for the spelling of geographical names has not taken place. The Government have passed occasional orders in connection with different works, but have substituted no plan of their own for Dr. Hunter's. They have prepared geographical lists as stated in the text. General orders on the spelling question are not yet passed. The steps necessary for such a course are apparently three:—first to frame a general standard which will embrace all the South Indian languages; secondly to extract thence tables for each language somewhat modified to suit the requirements of each; thirdly to prescribe various conditions under which such transliteration is to be employed. (19) *Summary of the above paragraphs.*—The question of the conflicting styles of spelling may be summed up as follows. The continental method has an undoubted superiority in cases where particular accuracy is required; as for scientific or philological purposes, or in transcriptions from the dictionary. The English style is sufficiently accurate for all ordinary purposes of identification. It has also the recommendation of being that to which all English people are accustomed; in fact the opposite is as much a foreign style to Englishmen as are the vernaculars themselves. As stated at the beginning of the note, if the continental style finally supersedes the English style, the reason will be that the English have surrendered that which is most natural to themselves in order to provide the literary machinery which is most suitable to India. With regard to official action, the Governments of other provinces have brought this question to an issue on the occasion of publishing their respective geographical gazetteers. This Government having published no gazetteer has not brought the matter to an issue. The endeavours made in the present volumes to elucidate the subject are tentative. (20) *General standard romanizing alphabets.*—To complete the subject of Indian transliteration, it seems necessary to mention the general and universal alphabets which have been proposed in the same connection. Probably Indian transliteration is already sufficiently provided for, and these alphabets will have little influence in this country. But still it is to be observed that they are designed for application to all languages, including the Indian. The most noteworthy of these are the standard alphabet constructed by Professor Lepsius of Berlin, and Max Müller's Missionary alphabet. Lepsius' alphabet is remarkably full and ingenious, and is based on general scientific principles; but it is complex, and cannot be printed without special type. The Church Missionary Society however have recommended it to their missionaries for adoption, and Gundert's Malayalam Dictionary is transliterated on this system. Max Müller's alphabet is designed on the principle of avoiding niceties and employing printers' ordinary signs only, so that it can be set up anywhere. The following tabulation of this system will speak for itself. A special feature of the system is that italics indicate a modification of some type-letter, but do not distinguish between different modifications. It is not known that any use has been made of this system in Southern India:—

Roman letter.	Sound to which applied; specimen.	Roman letter.	Sound to which applied; specimen.	Roman letter.	Sound to which applied; specimen.	Roman letter.	Sound to which applied; specimen.
a	America	h	hand	ng	sinking	u	full
a	psalm	‘h	loch	o	philology	*u*	fool
a	bought, all	’h	tage, *Ger.*	*o*	note	[illegible]	but, birch
ä	väter, *Ger.*	i	knit	ö	könig, *Ger.*, or peu, *Fr.*	w	wine
ai	aisle	*i*	neat	oi	oil	‘w	whine
au	proud	k	kite	p	pat	y	yet
b	bid	*k*	church	r	true	’y	ich, *Ger.*
d	dock	l	let	*r*	car	z	zeal
d*h*	this	*l*	William	s	sin	*z*	pleasure
e	debt	m	man	*s*	sharp		
e	date	n	not	t	tan		
f	fat	*n* or ñ	new	t*h*	thin		
g	gate	N	bon, *Fr.*	ü	une, *Fr.*, or für, *Ger.*		
g	gin						

express orders, transliteration tables on this system, based primarily on the table shown in Vol. II, App. XXIV. The present volumes give the elements for determining the future orthography of all vernacular words belonging to the Presidency which occur in them; or about 8,000 words in all. The traditional English form as ascertained from the best authorities is here first recorded; excepting in certain cases, as for instance words used in a philological or scientific connection or mere transcriptions from the dictionary, where the new form is proceeded to direct. Secondly the transliteration on the continental system according to Vol. II, App. XXIII has been ascertained as accurately as possible by comparison with the original South Indian vernacular in which the words are most frequently found; and is set in a bracket by the side of the traditional form if such occurs, or in a bracket by itself if such does not occur. Thirdly where particular forms of geographical names have been authorized by the Madras Government, as above mentioned, these are distinguished by an asterisk; and similar forms authorized by the Government of the neighbouring province of Mysore (295 in number) are distinguished by a special entry. Except in the cases just mentioned no attempt has been made to indicate forms of spelling which should be adopted for actual use, a question which must be determined by practical considerations and particular requirements, or by future orders of Government. The procedure here mentioned has been adopted throughout the Glossary and Index with cross-references; and in the case of all lists contained in the work where that does not cause inconvenience. Attention having been given to the orthography of the portions of the volumes required for reference, the traditional spellings have been retained in the current texts without alteration. It is probable that in twenty years' time the difficulties which now attend a practical treatment of the orthography of the Presidency will have disappeared, the new style having superseded the old. But before that result is arrived at, there must be some consensus of opinion as to the treatment of the Tamul language. It must also be understood that accents are an essential part of the new style, without which it is inferior in perspicuity to the old. The native states of Travancore and Cochin transliterate on the English traditional method above described. The French at Pondicherry transliterate according to the genius of their own language; *ou* stands for *oo*, and the circumflex serves to indicate long vowels.

739. CORRESPONDENCE.—The literary institutions or libraries with which the Government are in communication in other parts of India, in Europe, or elsewhere, are shown in the list at foot.[10]

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[10] LITERARY INSTITUTIONS AND LIBRARIES IN CORRESPONDENCE WITH THE MADRAS GOVERNMENT.

Literary Institutions.

Calcutta University	Calcutta.
Asiatic Society of Bengal ...	Do.
Sanscrit College	Do.
Do.	Benares.
Muir College	Allahabad.
Canning College	Lucknow.
Agra College	Agra.
Delhi do.	Delhi.
Kristnagar College	Kristnagar.
Moorshedabad College	Moorshedabad.
Serampore College	Serampore.
Oriental College	Lahore.
Panjaub University	Do.
Bombay do.	Bombay.
The Asiatic Society	Do.
Elphinstone College	Do.
Deccan College	Poona.
Asiatic Society	Ceylon.
Royal Asiatic Society of Great Britain and Ireland.	London, England.
Société Asiatique	Paris, France.
Bibliothèque Nationale	Do. do.
Royal Academy	Berlin, Germany.
Deutche Morgenländische Gesellschaft.	Leipzig and Halle, Germany.
Imperial Academy of Sciences ...	Vienna, Austria.
Hungarian Academy of Sciences.	Pesth, Hungary.
Society of Northern Antiquaries.	Copenhagen, Denmark.
Imperial Academy of Sciences ...	St. Petersburg, Russia.
American Oriental Society ...	Newhaven, Connecticut, United States of America.

Libraries.

Public Library	Calcutta.
Indian Museum Library	Do.
Delhi Town Hall Library ...	Delhi.
Library and Museum	Lahore.
Anjuman-i-Panjaub	Do.
Bombay Fort Reading Room and Library.	Bombay.
India Office Library	London, England.
University do.	Do. do.
British Museum Library ...	Do. do.
Bodleian do.	Oxford, England.
University do.	Cambridge, do.
Do. do.	Edinburgh, Scotland.
Advocates' do.	Do. do.
University Museum Library ...	Aberdeen, do.
Do. do. ...	Glasgow, do.
Do. do. ...	St. Andrew's, do.
Trinity College Library	Dublin, Ireland.
Royal Library	Berlin, Germany.
Do. do.	Munich, do.
University Library	Göttingen, do.
Do. do.	Bonn, do.
Do. do.	Copenhagen, Denmark.
Imperial do.	St. Petersburg, Russia.
Public do.	Victoria, Australia.
Public Library and Museum ...	Melbourne, do.

CHAPTER VIII.

INSTRUCTION.

BOOK REGISTRATION, &c.

740. INTRODUCTION.—Some remarks are given in the foot-notes [1, 2 & 3] on the history of South Indian typography, and present state of native printing-presses and agencies for publishing and selling books in the Presidency.

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[1] SKETCH HISTORY OF DRAVIDIAN TYPOGRAPHY.—*Tamul.*—The first Tamul types were cut at Amsterdam in 1678, to express the names of some plants in the large work called "Horti Indici Malabarici." They were however very indifferent. The next attempt was made at Halle, about 1710, to supply the Tranquebar Mission. Fenger says :— "the "people there, though unacquainted with the Tamul language, succeeded in making some Tamul letters, which they hastily "tried and sent to Tranquebar ; where the first part of the New Testament, as well as other things, was printed with "them. This sample, the very first thing ever printed in Tamul characters, was the Apostles' Creed ; and the friends at "Halle, when they despatched it with the printing-press, requested soon to be requited by a copy of the New Testament in "Tamul." The printing of the New Testament was completed at Tranquebar in 1715. The type first cut at Halle is about equal to the size called English. Smaller founts were cut afterwards. Founts of type were subsequently cut in India. In 1761 the Madras Government allowed the Vepery missionaries the use of a press taken at Pondicherry. Tamul typography was much improved some twenty-five years ago by the American Mission Press in Madras. The smallest size (brevier) was on that occasion prepared in America. (2) *Teloogoo.*—Printing in Teloogoo was commenced about 1806, but there was not much done in it till 1830. The Gospel of St. Luke was printed in 1810, and eight years later the Serampore missionaries printed their Teloogoo version of the New Testament. The Madras Religious Tract Society commenced its Teloogoo series of publications in 1819, and the London Mission printed both in Teloogoo and Canarese at their press at Bellary, established in 1825. Much of the excellence of the present style of Teloogoo printing is due to the efforts of Mr. P. R. Hunt, the Superintendent of the American Mission Press, the larger series of Teloogoo type having been cut in Madras under his directions. The press of the Society for Promoting Christian Knowledge turns out good work in Teloogoo, and within the last year or two has completed an excellent fount of brevier Teloogoo type, the smallest in use. (3) *Canarese.*—Canarese typography has been brought to its present degree of excellence by the efforts successively of the London, Wesleyan, and Basel Missionary Societies. The first Canarese type was produced, for the purpose of printing the Bible, under the direction of the superintendent of the press established by the London Missionary Society in Bellary, in 1825, which continued in operation for many years. The Wesleyan Mission Press, subsequently established at Bangalore, but now closed, did much to perfect Canarese type ; as also the Basel Mission Press at Mangalore, whose Canarese printing is unequalled for beauty by any other press in India. (4) *Malayalam.*—Among the earliest printed Malayalam books are the Malayalam-Portuguese and Portuguese-Malayalam dictionaries compiled by the Portuguese and Italian missionaries of Veerapoly, at which place they were printed in 1746. The "Pattam Pana" printed by the Rev. F. E. Hanxleden was probably prior to these dictionaries. *After the destruction of the Roman* Catholic establishment at Veerapoly by Tippoo, a printing-press was set up at Connemow, which supplied religious books for Malayalam Catholics. This press used vertical types. In 1810 a set of types was cast at Bombay, the form of the letters being copied from the palm-leaf writing. The Protestant Missions next turned their attention to printing. The Church Mission Society (which commenced work at Cottayam in 1816) commenced to print in 1820, its first production being the Gospel of St. Luke ; the punches, type, &c., were made by the Rev. H. Bailey, with the aid of a native blacksmith. In 1839 the Vepery Mission Press of the Society for Promoting Christian Knowledge printed Mr. F. Spring's Malayalam Grammar. The types are long and incline to the left. The Basel Mission commenced work at Tellicherry in 1839. A lithographic press was set up in 1845 and continued to work till 1863. In 1863 Malayalam punches were cut at Stuttgart and the type cast at Mangalore, where it has been in use since that time. The London Mission (which commenced work in Travancore in 1806) printed Malayalam books ; at first at Cottayam, but during the last few years at Nagarcoil. Native presses have also been at work for several years at Munjery (since closed), Calicut, Tellicherry, and Mattancherry in Cochin. Among their publications are the Mahabharat, Ramayana, Nalacharitam, Mahabhagavat, and Scandapoorana. The above presses print Malayalam in the Kolezhoot alphabet. The Moplahs on the other hand use Arabic letters. Their first press was a lithographic one set up at Tellicherry in 1863 or 1864. The smallest type used in Malayalam printing is long primer. The sizes in ordinary use are old and new pica, while double pica is used for titles.

[2] SKETCH ACCOUNT OF THE PRESENT STATE OF NATIVE PRINTING-PRESSES IN THE PRESIDENCY.—There are at the present time about sixty printing offices in the city of Madras, the property for the most part of Hindoos. These presses are mainly employed in the printing of job-work, that is to say circulars, bill-heads, forms, &c., for the use of mercantile firms ; and in the production of Hindoo vernacular religious books, and the works of the most popular native authors. Within the last fifteen years the old wooden press has given place to the more effective iron press, Columbian generally, of European manufacture. The plant of the larger number of these offices does not exceed Rupees 1,000 in value. In some few cases, however, the value ranges from Rupees 2,000 to Rupees 10,000. As a general rule the printing rates are exceedingly low. Bookbinding also is usually carried on at these presses. It consists generally of simple stitching or stabbing and paper covers, or common cloth back with fancy China paper sides. The charges are exceedingly low, ranging from half an anna to two annas a copy according to the size and thickness of the volume.

[3] SKETCH ACCOUNT OF NATIVE PUBLISHING AND BOOK-SELLING AGENCIES IN THE PRESIDENCY.—*Ordinary native publishers.*—Of these there may be said to be four distinct classes. First the sons or near relatives of those eminent Tamul scholars, who in the early part of the nineteenth century laboured for the promotion of Tamul literature by printing and publishing standard works on poetry, grammar, rhetoric and religion, with learned commentaries. Publishers of this class are few in number and their issues are much below the average. Secondly there are workmen who were once employed as compositors, binders, &c., in printing establishments under European supervision. Some of these have succeeded in doing a publishing business and supplying in a limited degree the demand of schools and colleges or the requirements of the public at large. Thirdly may be named Tamul and Teloogoo pundits, who with or without

741. Registration.—The registration of books in this Presidency is regulated by India Act XXV of 1867. The intention of that portion of the Act which relates to book registration is to procure a complete list of the works published in the Presidency, together with a knowledge of their contents, and to effect this object the registration of books is rendered compulsory. All printers are required by section 9 of the Act to deliver within one calendar month, from the date of issue, to the officer appointed by the local Government to receive them, three copies of every book produced at their presses, together with a memorandum of particulars regarding each work as required by section 18. There is a Registrar of Books in Madras whose duty it is to collect, catalogue and preserve copies of all books printed in the Presidency town. In the case of books published in the districts of the Madras Presidency, the local Registrars of Assurances, who are in communication with the Registrar of Books, receive and transmit to him such books with the prescribed memoranda of particulars, for inclusion in his collection and catalogue. The printers are paid at published prices for the books furnished to the Registrars. The particulars contained in the printers' memoranda are entered in a register called the Catalogue of Books (section 18). The rules issued by the Government under section 20 of the Act for carrying out the objects of book registration were published in the Fort St. George Gazette of the 24th September 1867. The Registrar of Books compiles for publication in the Fort St. George Gazette quarterly catalogues of all registered works with a short statement of the contents of those of them, whose title pages do not give sufficient information, or which are works of importance and interest. Copies of all registered works are also sent by the Registrar monthly to the Government for transmission to the Government of India, while copies of those works only which, from a perusal of the quarterly catalogues, the Librarian of the India office may select for the Library, are transmitted to the Secretary of State for India. The Registrar further submits an annual analysis and review of the published literature of the Presidency besides other periodical reports called for by the Government, and such review is published with similar reviews from other Presidencies and administrations in an annual volume as "Selections from the Records of the Government of India," from which a tolerably correct acquaintance is obtained by the Administrations with the progress of literary effort during each year and particularly with the tendency of native publications. The note at foot gives an analysis of the publications registered during 1883.[4] The

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pecuniary help from others, publish a limited number of works. These publications are in every respect superior to those printed by the other classes. Fourthly some natives who are otherwise employed own no presses but publish a few works. (2) *The Madras Vernacular and School Book Publishing Society.*—The most enlightened development of vernacular publication is shown in the work of this society. It was organised in the year 1820, about two years previous to the earliest measures of the Madras Government in the Department of Public Instruction initiated by Sir Thomas Munro. Its first object was the provision of suitable school-books of instruction for the use of native schools and seminaries, both English and Vernacular; and with this object it began the purchase, preparation and publication of useful works to be supplied to them either gratuitously or at a cheap rate. In this work it continued for some time until 1865 when its work was taken up by other and more recent agencies, especially the Government Department of Public Instruction and the Vernacular Education Society. It then directed its efforts principally to the creation and diffusion of a sound and instructive vernacular literature. The results of the latter are various publications in Tamul, Teloogoo, Hindostany, Malayalam, and Canarese; and the Tamul and Teloogoo "Janavinodiny" a monthly magazine of instruction and amusement. A Teloogoo dictionary undertaken on a large scale is also nearly completed. From the commencement the depository of this society has been in the Old College, Nungumbaukum, Madras. At first the society was maintained by subscriptions and donations, mostly from Europeans employed in the service of Government. At a later stage it received an annual grant from Government. For several years past it has been self-supporting. Very recently it has undertaken the custody and sale of Government school-books. See the foot-note in the article on Government in connection with Literature. (3) *Price of native publications.*—This is extremely moderate, as may be inferred from the remarks made above with regard to printing. A tale or drama, containing about 100 pages, 8vo., half bound in cloth, is sold for about 2½ annas. Works which have a small circulation are however somewhat more expensive. (4) *Book-selling.*—The agencies for the circulation of native books are sufficiently effective. Vernacular books may be purchased in the bazaars of every town in the country. The printers generally sell their own publications. Many of them are taken by book-hawkers, though men of this class are frequently relatives of the printers. In Madras during the early part of the day, it is usual for book-hawkers to offer their wares through the town; in the afternoon they resort to the market. The book-hawkers visit also the principal temples when feasts are held.

[4] Analysis of Publications lately registered.—The number of publications registered in this Presidency during the year 1883 was 818, of which 763 were books and pamphlets and 55 periodicals. The publications are grouped in accordance with four fundamental divisions: first as originals, translations, and republications; secondly according to the object with which they are written, that is, as educational or non-educational; thirdly according to the languages in which they are written; fourthly according to their subject-matter as biographies, dramas, &c. Under the first classification, there were 225 original works, 37 translations, and 556 republications. Under the second classification, 210 were educational works and 608 non-educational works belonging to the class of general literature. Under the third classification, 126 were books in English and other European languages, 584 books published in the Vernacular languages spoken in the Presidency, 58 books in Oriental classical languages, and 50 books published in more than one language. According to subject-matter, there were 4 works in English under the head of art; 7 works under the head of biography, of which 2 were in English; 29 dramatical works; 14 works of fiction, of which 1 was in English; 10 historical works, of which

non-delivery of publications to the Registrar is a penal offence on the part of the publisher; no prosecutions however have yet taken place. The publications exempted under section 21 from the provisions of the Act are given at foot.[5] The rules having the force of law in connection with the subject of Book Registration are given in foot-note.[6]

742. COPYRIGHT.—On the payment of two rupees after the delivery of books to the Registrar of Books, such entry with a note that the copyright has been registered secures the copyright of the work to the proprietor, and is viewed as an entry in the book of registry kept under India Act XX of 1847 (providing for the enforcement of copyright in British India). Before the Registration Act all entries of copyright under India Act XX of 1847 had to be made in the books of the Home department of the Government of India, being forwarded through the local Government. The registration of copyright is not compulsory; but the copyright of books published by private persons is frequently secured under the present arrangement. Unless the copyright is secured thus formally the author or proprietor will have no copyright. Anybody else may then publish the work with impunity and deprive him of his interest in his work, and no remedy can be had in a Court of Law. If on the other hand copyright is registered, the fact will be admissible as 'primâ facie' evidence of title, and the registered proprietor can exercise the right to assign his interest or any portion of his interest in the book. Should any person print or cause to be printed any book in which there subsists copyright without the consent in writing of the proprietor, or have in his possession for sale or hire any book so unlawfully printed without such consent, such offender makes himself liable to a special action for damages, and all printed copies of such work are forfeited to the copyright proprietor. At one time it was not uncommon to print on the title page the words "Registered Copyright" and similar formulæ, even though the copyright had not been registered, but compliance with the law is now more general since an explanation of its provisions was, by order of Government, circulated among printers and publishers in 1875. It not unfrequently happens that the copyright of Government books is infringed. The question of amending the Indian Copyright Law in this particular is under consideration.

743. REGULATION OF PRINTING.—India Act XXV of 1867 also provides for the regulation of printing presses and of periodicals containing news. The keeper of any press for the printing of books or papers is required to make a declaration before a Magistrate to the effect that he is the keeper of a printing press. All books and papers must have printed legibly on them the names of the printer, publisher and places of printing and publication; non-compliance with this is penal.

744. LAW.—The law relating to copyright is contained in the following:— Statutes 3 and 4 Will. IV, c. 15 (1833 A.D.): Drama; 5 and 6 Vic., c. 45 (1842 A.D.): Copyright Act; 7 and 8 Vic., c. 12 (1844 A.D.): International Copyright; 10 and 11 Vic., c. 95 (1847 A.D.): Import of Reprints of Copyright Works; 13 and 14 Vic., c. 104, ss. 6, 7, 15 (1850 A.D.): Copyright of Designs; 15 and 16 Vic., c. 12 (1852 A.D.): International Copyright; 24 and 25 Vic., c. 67, s. 43 (1861 A.D.): India; 25 and 26 Vic., c. 68 (1862 A.D.): Copyright in Works of Fine Arts; 39 and 40 Vic., c. 36 (1876 A.D.): Foreign Reprints of Copyright Works; India Act XX of 1847 (Copyright); India Act XXV of 1867 (Printing Presses and Books Act); India Act I of 1877 (Specific Relief); India

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5 were in English; 120 publications under the head of language, of which 17 were in English; 29 legal publications, 20 of which were in English; 22 under medicine, of which 4 were in English; 94 miscellaneous works, of which 21 were in English; 76 works under poetry, of which 1 was in English; 4 under politics, all of which were in English; 3 under philosophy, of which 2 were in English; 361—31 in English—under religion, of which 277 represent Hindooism, 146 Christianity, and 30 Mahomedanism; 12 under mathematical and mechanical science, of which 7 were in English; 30 under natural science, of which 6 were in English; and 3 under voyages and travels, of which 2 were in English.

[5] PUBLICATIONS EXEMPTED FROM REGISTRATION.—Acts of the Legislative Council without notes or commentaries; price lists and tradesmen's circulars; catalogues of books and other articles; auctioneers' notices and advertisements; play-bills, comprising advertisements of theatrical and musical entertainments; decisions of Courts of Law without notes or commentaries; petitions and appeals addressed to constituted authority under the provisions of law; testimonials of private individuals or public officers; annual reports of schools, banks, societies, and firms; almanacs and calendars; labels affixed to articles of commerce.

[6] RULES HAVING THE FORCE OF LAW.—Under India Act XXV of 1867, ss. 20 and 21 (Printing Presses and Books Act), the following have the force of law:—(1) Section 20, General rules—Educational Notification, dated 24th September 1867; Fort St. George Gazette, dated 15th October 1867. (2) Section 21, Exclusion of certain class of books from the provisions of the Act—Government of India, Home Department Notifications, Gazette of India, 23rd December 1871 and 17th August 1872.

Act XV of 1877 (Limitation); India Act VIII of 1878, s. 18 (Sea Customs); India Act I of 1879, sch. II, No. 5 (Stamps); India Act XV of 1882, s. 19 (n), (Presidency Small Cause Courts). The detailed law relating to books in this connection is shown under the head of "Books" in Vol. II, App. LIV.

745. STATISTICS.—The table at foot [7] shows the number of books simply registered and of those of which the copyright was secured during the last ten years.

MADRAS MEDICAL COLLEGE, &c.

746. MEDICAL COLLEGE.—The Madras Medical College, which was established in the governorship of Sir Frederick Adam in 1835, was originally a school of medicine in which medical subordinates were trained for the public service, but it now also trains students for medical degrees of the Madras University. It is under the general control of the Director of Public Instruction, the Surgeon-General being ex-officio visitor. The college consists of two departments. In the senior or University department, the students qualify for the technical M.B. (Bachelor of Medicine) and C.M. (Master in Surgery) degrees of the Madras University by five years' study, and for the L.M.S. (Licentiate of Medicine and Surgery) degree by four years' study. The qualification for entry to this department is that candidates for the former degree must have passed the First Examination in Arts, and those for the latter degree the Matriculation Examination of the University. A scale of fees has been laid down for admission of students in either of the sections of the first department. The second department is for military hospital apprentices qualifying for employ as military apothecaries, and civil hospital apprentices qualifying for employ as civil apothecaries under Government or local boards; the test for entry being a competitive examination in the former case and the University Matriculation Examination in the latter. The training given in this is equal to that undergone by students qualifying for the L.M.S. degree. Female students, of whom there were altogether 10 in 1883-84, may belong to either of these two departments. The entrance examination to the second department for female candidates is the Higher examination for women. A junior or third department formerly consisted of military native medical pupils qualifying for employ as military hospital assistants, and civil medical pupils qualifying for employ as civil hospital assistants under the Government or local boards. This department ceased to exist in 1883, and the pupils who constituted it were transferred to the Royapooram Auxiliary Medical school next to be mentioned. The figures at foot [1] give the

[7] REGISTRATION OF BOOKS AND COPYRIGHT IN BOOKS.

Years.	Number of works registered.	Number of works registered copyright.	Years.	Number of works registered.	Number of works registered copyright.
1874	756	64	1880	875	101
1875	745	57	1881	821	85
1876	823	81	1882	731	93
1877	636	71	1883	818	96
1878	824	91			
1879	775	83	Total ...	7,807	822

[1] NUMBER OF STUDENTS IN THE COLLEGE FOR FOUR YEARS.

Students.	1880-81.	1881-82.	1882-83.	1883-84.
Senior Department.				
Qualifying for the M.B. and C.M. degree ...	16	22	26	23
Do. L.M. and S. degree ...	46	60	62	74
Female students	...	...	...	3
Second Department.				
Qualifying for the apothecary grade ...	80	67	65	75
Female students	3	6	8	7
Total ...	145	155	161	182

but the college attendance became extremely small during the years 1880 and 1881, and the present full classes are to be attributed partly to the demand for Engineers by Local Fund Boards, Municipalities, &c., but mainly to the expectation that the policy of the Imperial Government of extending the employment of natives generally will result in a portion of the first appointments to the Engineer grade in the Government service being thrown open to competition in India. In the event of one appointment per annum being guaranteed to the Madras College, there is little doubt that fair classes might be found consisting entirely of graduates of the University. The course of study in the first department extends over a period of two years, and embraces instruction in mathematics, pure and applied, engineering design and construction, architectural and topographical drawing, and surveying and levelling. The session commences in January and terminates in December, when a final examination is held by independent examiners for the award of certificates as Assistant Engineer. The University examination for the B.C.E. Degree takes place in the following January. The second department is composed of non-commissioned officers and soldiers of British regiments and of civilians. University matriculates are eligible for admission without examination; but all other candidates undergo an entrance examination in arithmetic and English. The successful military candidates, whose number is limited to five annually, proceed to Bangalore for one year to acquire a knowledge of vernacular language, after qualifying in which their admission to the college is confirmed, and they continue their studies in Madras in company with the civil students. The matriculates and other successful civilians join the college early in August, and remain under instruction for a year and ten months. The course embraces the subjects taught to the Engineer class, with vernacular language added; but the standard aimed at is of a more elementary character. The session terminates in May, when a final examination is held by independent examiners for the award of certificates as Supervisor and Overseer, Public Works department. The Public Works department selects such of the passed men as it requires, confirming them as members of the regular establishment after a year's probation on works; and the remaining certificate-holders generally secure employment under Local Fund Boards, Municipalities, &c. Admission to the special department or surveying and drawing classes takes place in the same manner as to the second department; but the standard of entrance examination is somewhat lower. The sessions are also the same, but the course comprises surveying and levelling only for the surveying class, and plan-drawing and estimating only for the drawing class. The final examinations are held by the college staff, and certificates as Surveyor or Draftsman awarded. Successful students find employment in the Public Works department, the Local Fund Boards, and Revenue Survey, Railways, and elsewhere. The classes are not at present as large as they might be, a result attributable partly to the small salaries offered to Draftsmen, and to the temporary nature of the work usually open to Surveyors. Instruction in photography is given to a few students selected from the different classes, and the advantage is eagerly sought after. The college has a library of about 2,000 volumes, chiefly technical works; and a model room whose contents are liberally used in engineering and drawing instruction.

750. STAFF.—The supervising staff consists of a Principal (who must be a military officer) and Professor of Engineering; one Professor of Mathematics; one Instructor in Engineering and Mathematics, who is also Librarian, Storekeeper and Superintendent of military students; two Instructors in Surveying and Drawing, one of whom also teaches Photography; one Instructor in Surveying; one Instructor in Drawing; two Pundits; one Native Bricklaying Instructor. The military students are under the command of the Principal, and reside in barracks at the college. They draw stipends of Rupees 10 each per mensem from the Educational department in addition to their pay, rations, clothing, &c., which they receive from the Military department.

751. FINANCIAL.—Five scholarships of Rupees 15 each per mensem for the second department, five of Rupees 8 for the surveying class, and five of Rupees 8 for the drawing class are tenable during the second year of study by the most proficient students of the respective classes. The "Walker" Scholarship of about Rupees 13 per mensem is tenable biennially for two years by a native of the west

coast districts only. Free studentships are open to boys of the Lawrence Asylum, and to others at the discretion of the Principal, up to a limit of five per cent. on the number of paying students as a maximum. The fees paid by the first department are Rupees 16 per mensem, and by the second and special departments, Rupees 3 per mensem. All the final examinations for certificates are open to independent candidates on fee payment. In 1873 the college was transferred from Imperial to Provincial Services, and a grant of £4,304 (equivalent to Rupees 51,648 at 1*s*. 8*d*. exchange) made as compensation. From the table at foot [2] it may be seen that, deducting fees, the average annual cost of the institution during the last five years has been Rupees 34,568.

EXAMINING BODIES.

752. Board of Examiners.—The present Board [1] consists of a President, who is usually a member of the Board of Revenue, and a certain number of ex-officio and special members. The ex-officio members are the Translators to Government and certain officers of the Survey and Settlement departments, while the special members are appointed at the pleasure of Government. Except for the tests in Hindostany and Persian for Military officers and the Translation tests of the

[2] Abstract of Approximate Receipts and Charges from 1878-79 to 1884-85.

Items.	Actuals, 1878-79.	Actuals, 1879-80.	Actuals, 1880-81.	Actuals, 1881-82.	Actuals, 1882-83.	Estimate, 1883-84.	Estimate, 1884-85.
Receipts—	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Fees and fines	6,238	4,351	2,020	1,507	3,299	5,500	6,000
Charges—							
Principal	21,123	16,143	10,389	10,389	10,389	10,389	11,340
Masters and teachers	15,910	17,019	15,255	14,299	16,661	16,600	18,000
Office establishment	2,177	2,106	2,126	2,124	2,137	2,276	2,289
Scholarships (Government) ...	2,508	2,777	2,687	1,956	1,602	1,720	2,200
Contingencies	2,825	2,844	1,883	1,626	2,260	3,235	3,360
Apprentice Overseers	...	...	734	6,054	...	...	...
Petty improvements and repairs to buildings	...	...	167	1,124	964	...	...
Total ...	44,543	40,889	33,241	37,572	34,013	34,220	37,189
Average annual cost of educating each pupil.							
College department. Total cost ...	816	1,122	2,195	2,356	755	423	447
College department. Cost to Govt...	591	921	2,015	2,092	551	233	257
School department. Total cost ...	242	309	437	635	569	390	366
School department. Cost to Govt....	210	278	408	606	538	365	339

[1] Sketch History of the Old College and Board of Examiners.—By notification, dated the 1st May 1812, the Board for the College of Fort St. George was constituted. There is nothing to show who were the predecessors of this institution. The College Board held office first in Sullivan's Gardens, St. Thomé; next in Anderson's Gardens, Nungumbaukum; and lastly from 1827 in the College Hall premises, Nungumbaukum. The work of the Board consisted—(i) "in expediting and perfecting the preparation of candidates for those important public offices which the members of the Civil Service are destined to fill;" (ii) in supervising the instruction of Moonshees; (iii) in supervising the instruction of persons to be appointed Hindoo and Mahomedan Law officers in the various courts; (iv) in bringing out works in the Oriental languages and certain other special subjects and in working the College Press; (v) in keeping up a depôt or library for the sale and loan of Oriental works; and (vi) in having in charge the Library of Oriental MSS. transferred from the Museum of the Madras Literary Society. In November 1826 the services of a portion of the members of the Board were dispensed with, and the Committee of Public Instruction appointed to carry out a system of native education was incorporated with the Board, the combined body being termed the "Board for the College and for Public Instruction." In May 1836 the connexion between the College Board and the Committee for Public Instruction was dissolved, the Board reverting to its former duties; the establishment kept up for instructing Law officers was discharged; and the staff of Moonshees alone was retained for the instruction of Junior Civilians in the Oriental languages. In July 1854, the College of Fort St. George was abolished and a Board of Examiners was constituted, which was also to perform the duties of a Central Committee for the Examination of Assistants. Revised rules for the examination of Assistants were published in 1854, and further revision was carried out in 1864 and 1869. In 1856 the Board was assigned the duty first of prescribing tests for the examination of Deputy Collectors, who were then about to be appointed, and secondly of prescribing tests for admission to the Uncovenanted Civil Service. The tests for Deputy Collectors were not introduced, but those for the Uncovenanted Service were introduced, and examinations were held by the Board from November 1858 to 1861 when the Director of Public Instruction was appointed Commissioner. In 1861 the Library of the Board of Examiners was amalgamated with the Government Central Book Depôt. In 1862 the charge of the College Hall premises was transferred to the Director of Public Instruction. In January 1867, the Board of Examiners was abolished and a Committee for the Examination of Assistants was constituted. The staff of Moonshees was also dispensed with, and the Library of Oriental Manuscripts was transferred to the Director of Public Instruction. Such of the Board's records as it was desirable to retain were then lodged in the Government Office; the remainder were destroyed. The Committee for the Examination of Assistants now in its turn no longer exists, its designation having been changed again to "Board of Examiners" in January 1882.

Uncovenanted service, the Board conducts all the language examinations of the Presidency and a very large proportion of the departmental examinations in different departments. The examinations in Oriental languages conducted by the Board are held in January and July. Candidates for tests not above the military higher standard and second-class tests are examined either by the Board at Madras or by district committees, while those for the higher examinations in languages are invariably examined in Madras. The Translators to Government examine unaided for the lower tests, but for the higher tests they have the assistance of a scholar of reputation who receives a fee of Rupees 50 if not in the public service. The examinations conducted by the Board may be arranged as follows:—(*a*) Examination of Covenanted Civilians in all the prescribed languages and according to the standards' examinations; (*b*) examinations of Uncovenanted officers in the vernaculars under the rules published in the Fort St. George Gazette of the 11th November 1879; (*c*) examination of officers of the Educational Department, according to the high proficiency and honors tests for Civilians; (*d*) examination of Forest officers in the vernaculars; (*e*) examination of Police officers, Forest officers, and Cantonment Magistrates in law; (*f*) examination of Political officers by a special departmental test; (*g*) examination of all Military officers, including Medical officers and Chaplains in the prescribed languages excepting Hindostany and Persian; (*h*) examination in Hindostany of all officers in Civil employ; (*i*) examination in special languages, such as Ooriyah and Khond; (*j*) examination in special cases of candidates for the public service; (*k*) examination of officers under the orders of the Madras Bank and in Railway employ; (*l*) examination in Hindostany and other languages of officers in civil and military employ beyond the limits of the Presidency.

753. The following are further particulars regarding the above twelve heads:—(*a*) The Board tests Junior Civilians on arrival in the vernacular languages studied by them in England, and in conjunction with district committees examines Covenanted Assistants in January and July by the departmental examinations styled the lower and higher standards. The languages for these tests are, first the language of the district, and secondly any vernacular that may be selected including Hindostany and Ooriyah. In 1882 the Civil Account Code was added to the lower standard test; and the Civil Account Code, Revenue Survey, and Revenue Settlement to the higher standard. The Board also conducts the high proficiency and honors examinations for Civil Servants who wish to obtain distinction in languages. The languages for these tests are the four Dravidian vernaculars, Hindostany, Sanscrit and Persian. There is no test in Ooriyah beyond that for high proficiency, but there is a special test in Ooriyah for Civilians serving in Ganjam and Vizagapatam. When a Civilian has passed the high proficiency examination the Board grants a special certificate, and when the honors examination has been passed a diploma is given by the Governor in Council. (*b*) The Board also conducts the compulsory and voluntary examinations in the vernaculars for European and Eurasian officers in the Uncovenanted service. These officers are divided into three classes. The first class consists of officers holding appointments usually held by Covenanted Civil Servants. The rules for the examination of these officers is the same as those for Covenanted Civil Servants. The second class consists of Subordinate Judges, Deputy Collectors, and District Moonsifs. These officers have to pass the second-class test, which is compulsory, in the language of the district, before entering upon their duties after appointment or within one year thereafter. After passing the compulsory test these officers can go up for the high proficiency test in Tamul, Teloogoo, Malayalam or Canarese, obtaining a reward of Rupees 1,000 if successful. The third class consists of officers in the Police, Jail, Revenue Survey, Revenue Settlement, Public Works, Farm, and Civil Medical departments, and officers in all other departments holding corresponding positions to whom a knowledge of a vernacular language is considered necessary for the efficient performance of their duties. These officers are examined in Tamul, Teloogoo, Canarese and Malayalam by the third-class test, which is compulsory. After passing the third-class test they are permitted to go up for the second-class test already mentioned. The second-class test is purely a voluntary test for officers in the third class, and for passing which they obtain a reward of

Rupees 500. (*c*) Europeans and Eurasians serving in the Educational department, from the graded list down to Masters of Second-grade Colleges and Deputy Inspectors of Schools are examined by the Board according to the high proficiency test. This is a purely voluntary test for these officers, the compulsory departmental test being conducted by the Director of Public Instruction. The Board also examines educational officers of the graded list, who alone are permitted to appear for it, by the honors test for Civilians. (*d*) Conservators, Deputy and Assistant Conservators of the Forest department are examined by the Board according to the lower and higher standard vernacular tests for Assistant Collectors, Tooloo being an additional language in their case. The subordinate officers of the Forest department, if Europeans or Eurasians, are examined by the third-class test for Uncovenanted servants. (*e*) In conjunction with the same district committees the Board also examines Police officers, Forest officers, and Cantonment Magistrates in law; (*f*) and Political officers by a special departmental test laid down in 1883. (*g*) Commissioned Military, Warrant and Non-commissioned officers and privates, Medical Commissioned officers, Chaplains and Military Medical subordinates are also examined by the Board in the various languages named in the Army Regulations except in Hindostany and Persian, the examinations in which are conducted by a military examining committee. These are all examinations for rewards. (*h*) Military and other officers in civil employ are examined in Hindostany according to the lower and higher tests in addition to officers of the Postal, Telegraph, Topographical Survey, Trigonometrical Survey, Geological Survey, Marine Survey, and Accounts and Paper Currency departments, whose examinations, however, whether in Hindostany or a vernacular language by the higher standard, are made special cases. Medical officers who are District or Zillah Surgeons are also examined in Tamul, Teloogoo, Canarese, and Ooriyah by two tests, the colloquial and the higher standard, the latter being the military higher standard test. (*i*) The Board also arranges for the examination of Military officers in civil employ and officers of the Engineering and Police establishments when serving in the Ganjam or Vizagapatam district in Ooriyah, and of European and Native officials serving in any district in the Khond language. (*j*) Persons who are desirous of entering certain departments are examined under the special orders of Government in the vernacular tests applicable to those departments. (*k*) Railway officers are examined in Tamul and Teloogoo by a special test which is equal to the third-class test for Uncovenanted officers; and Agents and Accountants of the Madras Bank are examined in the language of their districts, or in Hindostany, according to a colloquial test which is called the Bank test. (*l*) The Board also arranges with military examining committees beyond the limits of the Presidency for examinations in Hindostany and other languages of officers in civil and military employ.

754. MILITARY EXAMINING COMMITTEES FOR LANGUAGE.—The examinations conducted in this Presidency under the immediate control of the military authorities (except those of a purely military nature which commissioned officers are required to pass for promotion to higher rank) are styled respectively the "Lower Standard," the "Higher Standard" and the "High Proficiency" tests, and are limited to the Hindostany and Persian languages. The vivâ voce portion of the lower and higher standard tests in Hindostany are conducted at up-country stations by committees of military officers appointed from time to time; the former examination is held on the first Monday of every alternate month; the latter on the 20th January, April, July, and October, or when that date falls on a Sunday, on the Monday immediately following. When it is possible to conduct the lower and higher standard tests in the Persian language in accordance with the provisions of clauses 79 and 194 of India Army Circulars of 1882, the vivâ voce portion of these examinations is held at an up-country station, but not on a fixed date, because the number of officers who are qualified to conduct such examinations being very small, it is found expedient to take advantage of the presence of such an officer in a station where a candidate may desire to present himself for examination. In all cases the committees submit a report on the results of the vivâ voce examination to the Examiner in Hindostany for final disposal. On the first Monday of every month the Examiner in Hindostany conducts the written examinations in all the tests in both languages. A reward of Rupees 180 is given for passing the lower

or higher standard test in Hindostany or the lower standard test in Persian. A candidate who passes the higher standard test in Persian obtains a reward of Rupees 500; while rewards of Rupees 1,000 and Rupees 2,000 are given to candidates who pass the high proficiency tests in Hindostany and Persian respectively. The lower and higher standard tests in Hindostany are obligatory on an officer who seeks admission into the Indian Army and for certain staff appointments. The object of the other tests is to encourage the study of Oriental languages. For any examination in Arabic, as also for the honor test in Hindostany and Persian, officers must proceed to Bombay.

755. Commissioner for the Uncovenanted Civil Service Examinations.—The Commissionership for Uncovenanted Civil Service Examinations [2] instituted in 1860 was then entrusted to the Director of Public Instruction. There has been some subsequent changes, but the same officer at present holds it. The correspondence of the Commissioner is carried on by a Secretary. For the examinations he appoints examiners paid out of the fees. All the examinations prescribed for entry into the various departments of the Uncovenanted service are conducted by the Commissioner, besides others intended for schoolmasters and pupils. Of these examinations, the Middle School Examination is held on the 1st December and four following days. The Special Tests are held in May. The examinations for the grades of Civil Hospital Apprentice and Civil Medical Pupil are held whenever candidates are required for the Civil Medical Department. The rest of the examinations mentioned are held in December. All these examinations are held at a very large number of centres in the Presidency and at others also in Mysore and Travancore. The examinations conducted by the Commissioner may be arranged as follows:—(*a*) the Middle School Examination which includes the modified General Test; (*b*) the Special Test Examinations; (*c*) an examination of candidates for the grade of Civil Hospital Apprentice; (*d*) an examination of candidates for the grade of Civil Medical Pupil; (*e*) the Special Upper Primary and the Higher Examination for Women; (*f*) an examination of Matriculated candidates in Handwriting; (*g*) examinations in general education of candidates for schoolmistresses' certificates of the first and third grades and for schoolmasters' certificates of the fifth grade.

756. The following are further particulars regarding the above seven kinds:—(*a*) In 1879-80 when the Middle School Examination of the Educational department was instituted as a test of the fitness of the pupils of the highest (upper fourth) class in middle schools to pass into the lowest (fifth class) of a high school, it was decided to utilize it as a standard of general knowledge requisite for employment in the public service also, and thus supersede the "General Test." The scheme of the examination was accordingly so framed as to admit to the examination non-pupils and those knowing no English but wishing to qualify for admission to Government service or for teacherships of the lower grades. The rules, with all the latest amendments, are published in a Supplement to the Fort St. George Gazette of the

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[2] Sketch History of the Uncovenanted Civil Service Examinations.—The Uncovenanted Civil Service examinations owe their origin to the Educational Despatch from the Court of Directors, dated 19th July 1854. This despatch while authorizing the Government of India to establish a liberal system of education throughout India, approved of the institution of examinations for testing the fitness of candidates for offices under Government. The discussion of details occupied considerable time, but a scheme of examination for all Government appointments in this Presidency above the grade of peon was at last promulgated in March 1858, when for the purposes of the examination the Uncovenanted Service was formed into two divisions, the first including all appointments, the salary of which exceeded Rupees 50 per mensem, and the second all appointments below that grade and above the grade of peon. The examination standards of the various departments at that time are given in full in Appendix F of the Madras Educational Report for 1858-59. The examinations just mentioned were for a short time held under the direction of the then Board of Examiners. No fee was required, and the consequence was that more examinees came forward than could be provided with proper accommodation or could have a reasonable prospect of success. Copying and other malpractices could not be prevented. In order to reduce the number of examinees to more manageable proportions the Government, in an order of the 11th October 1860, authorized several modifications to be made in the examination scheme, amongst which were the exemption of all appointments of Rupees 25 per mensem and under from the operation of the rules, and the exaction of a fee. The management of these examinations was at the same time transferred to a Commissioner, and the test became that long known as the "General Test." The General Test was an elementary examination in Language, Handwriting, Spelling, Arithmetic, Indian History, and General Geography. It was divided into three branches, according as the candidate elected to pass in Handwriting, Composition, and Orthography, in English or in a Vernacular language, or in both. The appointments in the public service were (and still are) similarly roughly classed in a corresponding manner (though there is no schedule giving a precise definition) into English, Vernacular, and Anglo-Vernacular appointments; a candidate for any of these appointments should pass in the corresponding branch. In 1879-80 the General Test Examination was held for the last time, and, up to that time, 3,017 candidates had been declared qualified for the public service according to the Anglo-Vernacular branch, 4,284 according to the English branch, and 3,647 according to the Vernacular branch of the test.

15th January 1884. Under this scheme private candidates (i.e., those wishing to qualify for Government service) are examined in the same papers and at the same time as other pupil-candidates for the Middle School Examination in Handwriting, Orthography, Grammar, Composition or Translation, Arithmetic, Geography, and Indian History, and any two of the following:—Mathematics, Introduction to Science, Physical Geography, Astronomy, Botany, Physiology, English History, Agriculture, and Political Economy. To qualify for Government service a candidate is required to pass in the first class and to gain a higher percentage of marks in Handwriting, Dictation, and Arithmetic than pupils have. The annual average number of candidates appearing for the Middle School Examination is 7,500, of these 5,900 are school pupils and 1,600 private candidates. (*b*) The present Special Test Examinations were instituted for the purpose of testing the fitness of candidates for particular situations demanding special qualifications, and the first examination of this nature was held in March 1863 in subjects relating to the Judicial and Magisterial departments. The Revenue Tests came into force in 1864. The original rules bear date the 4th February and 30th May 1862; later on these were revised, and the rules were again superseded by those published under date the 29th July 1869. The latter remain in force with certain slight alterations. A list of the various special tests and the appointments for which they qualify is given in the foot-note.[3] Under the rules no persons are admitted to any of the Special Tests except those who have passed the late General Test, the Middle School Examination—First Class—or the University Entrance Examination supplemented by a test in handwriting, but exceptions are sometimes made under the authority of

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[3] LIST OF SPECIAL TESTS.—(1) Judicial Test—Civil, Higher Grade called I-A—offices: Subordinate Judge; District Moonsif. (2) Judicial Test—Civil, Lower Grade called I-B—offices: Sheristadar in the High Court (Appellate Side), District Courts, Subordinate Judges' Courts; Chief Clerk or Manager, Egmore Police Court; Head Writer in District Courts and Subordinate Judges' Courts. (3) Judicial Test—Criminal, Higher Grade called II-A—offices: Subordinate Judge; District Moonsifs; Deputy Collector and Magistrate; Subordinate Magistrate of the first class; Chief Clerk or Manager, Egmore Police Court. (4) Judicial Test—Criminal, Lower Grade called II-B—offices: Tahsildar and Second-class Sub-Magistrate, Talook Sheristadar and Second-class Sub-Magistrate, Second-class Sub-Magistrate and Deputy Tahsildar, Second and Third Class Sub-Magistrates; Sheristadar in the High Court (Appellate Side), District Courts, and Subordinate Judges' Courts; Police Inspector; Head Writer in District Courts and Subordinate Judges' Courts. (5) Revenue Test—General, Higher Grade called III-A—offices: Deputy Collector and Magistrate; Uncovenanted Assistant in the Office of the Board of Revenue; Sheristadar to the Board of Revenue. (6) Revenue Test—General, Lower Grade called III-B—offices: Huzoor Sheristadar; Second-class Sub-Magistrate; Tahsildar and Deputy Tahsildar; Talook Sheristadar; Sub-Collector's Sheristadar and Head Clerk; Head Assistant's Head Clerk; Abkarry Superintendent and Deputy Superintendent, Madras. (7) Revenue Test—Salt department called IV—for officers of the Salt department. (8) Revenue Test—Sea Customs department called V—offices: Superintendent of Sea Customs; Assistant Superintendent of Sea Customs when the salary of the office amounts to Rupees 50 per mensem or more. (9) Account Test—called VII—offices: Accountant in the Board's office; Accountants in the English department of Collectors' offices drawing salaries of Rupees 50 and upwards; Accountant, Marine office; Accountant in the Sea Customs office; Accountant in the Stamp office; Accountant in the Office of Conservator of Forests. (10) Translation Test—Higher Grade called VII-A—offices: Translators and Interpreters in the High Court and District Courts; Interpreters in the Court of Small Causes, Madras, Office of the Commissioner of Police, and Police Courts. (11) Translation Test—Lower Grade called VII-B—offices: Subordinate Judge; District Moonsif; Deputy Collector and Magistrate; Translators in Offices of Government, Board of Revenue, Office of the Director of Revenue Settlement and Collectors' offices; English Record-keeper in Collectors' offices; Sub-Collectors' Sheristadar; Head Assistant's Head Clerk; Head Writers, District and Sessions Courts and Subordinate Judges' Courts; Head Clerks, Small Cause Courts; Head Clerks in Police Courts and Assistant Head Clerk, Egmore Police Court; all the other offices designated under I-B, II-A, II-B, III-A, III-B, and IV and Registrar, Deputy Registrar, Examiner, Record-keeper or Clerk in the correspondence department of any Court other than the High Court drawing salaries of Rupees 50 and upwards, in case the candidate has not passed in the vernacular language of the district in which he seeks employment in an examination of the Madras or other University. (12) Précis-writing—Higher Grade called VIII-A—offices: General—First, Second, and Third Assistants, Registrar, Record-keeper, Head Examiner in the Press department, Deputy Registrar, Indexer, Examiner, Head Clerk of the Reference Branch, Head Clerk of the Petition department, and Head Clerk of the Pension department in the Government office. Judicial—Subordinate Judges; District Moonsifs; Sheristadar, Manager, Record-keeper, Examiner of Correspondence and Indexer of the High Court, Appellate Side; Sheristadar in District and Session Courts and Subordinate Judges' Courts; Head Writer in District and Sessions Courts and Subordinate Judges' Courts; Manager, Record-keeper, and Examiner, Madras Small Cause Court; Head Clerks in Small Cause Courts; Examiner and Record-keeper in all the Courts; Book-keepers and Head Auditor in the Office of the Inspector-General of Police; Manager in the Office of the Commissioner of Police; Manager, Egmore Police Court, Madras; Record-keepers in the Police Courts, Presidency; Manager, Government Agency, Vizagapatam. Revenue—Head Sheristadar, Uncovenanted Assistants, Registrar, Deputy Registrar, Local Fund Manager, Manager of the Forest department, First, Second, Third and Fourth Accountants, Record-keeper, Indexer, Head Translators, and Head Accountant of the Local Fund department in the Office of the Board of Revenue; Manager, Indexer, Examiner, and Record-keepers in the Office of the Director of Revenue Settlement; Deputy Collector and Magistrate; Huzoor Sheristadar; Sub-Collector's Sheristadar; Tahsildars; Sub-Magistrates; Abkarry Superintendent, Madras; Manager and Accountants drawing salaries of Rupees 80 per mensem and upwards in the Sea Customs office, Madras; Accountant, English department, Collector's office; English Record-keeper in Collector's office; Accountants in the Stamp office, Madras, and Forest Conservancy department drawing salaries of Rupees 80 per mensem and upwards. Miscellaneous—Superintendents and Accountants drawing salaries of Rupees 80 and upwards per mensem in the Accountant-General's office; Manager, Office of the Commissioner for the U.C.S. Examinations; Manager, Office of the Director of Public Instruction; Manager, Examiner, Deputy Examiner, Record-keeper, and Accountants drawing Rupees 80 and upwards in the Marine office, Madras; Manager and Record-keeper in the Office of the Chepauk Agent and Paymaster of Carnatic Stipends; all clerks drawing a salary of Rupees 80 and upwards per mensem. (13) Précis-writing—Lower Grade called VIII-B—The offices for which this test is prescribed are the same as those under VII-A—Translation Test, Higher Grade.

Government. In March 1882 the examinations for Pleaderships were withdrawn from the list of Special Tests, the examinations being now conducted by the High Court. In July 1883 a revised set of rules was prescribed for the examination of officers of the Salt department in supersession of the old test (No. IV of the Special Test rules). This examination is now held separately from the other Special Test Examinations. The rules are published in the Fort St. George Gazette of the 31st July 1883. The result of the Special Test Examinations from their commencement in declaring candidates eligible for particular offices is as shown below.[4] (g) The conduct of the examinations in general education of candidates for schoolmistresses' certificates of the first and third grades and for schoolmasters' certificates of the fifth grade was transferred to the Commissioner for the U.C.S. Examinations in July 1881. Till then such examinations were conducted by the Educational department.

757. OTHER EXAMINING BODIES.—Particulars of other examining bodies can best be seen by the list of miscellaneous tests shown in alphabetical order in the foot-note.[5]

[4] NUMBER OF CANDIDATES PASSED TO DATE FOR SPECIAL TESTS ANSWERING TO CERTAIN APPOINTMENTS.

Principal Sudder Ameens, District Moonsifs, and Pleaders in Civil and Sessions Courts, Principal Sudder Ameens' Courts, and Courts of Small Causes	833
Pleaders in District Moonsifs' Courts	1,600
Court Sheristadars	332
Deputy Collectors and Magistrates	563
Nazirs in Civil and Sessions Courts and Principal Sudder Ameens' Courts	132
Sub-Magistrates, First Class	987
Uncovenanted Assistants and Sheristadar of the Revenue Board office	325
Superintendents and Assistant Superintendents, Salt department	153
Superintendents of Sea Customs	140
Huzoor Sheristadars ... ... Abkarry Superintendent, Deputy Superintendent, Madras	339
Tahsildars and Second-class Sub-Magistrates, Talook Sheristadars, Deputy Tahsildars, &c.	1,043
Sub-Collector's Sheristadar and Head Assistant's Head Clerk	561
Superintendents, Clerks, and Accountants in the Accountant-General's office ... ... Accountants in the English department of Collectors' offices drawing a salary of Rupees 50 and upwards	324
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[5] MISCELLANEOUS EXAMINATION TESTS.—(1) *Agriculture.*—The Principal of the Agricultural College annually examines the students of his college and grants first and second class certificates of proficiency in agriculture. The examination for the two classes of certificates is the same, but to get a first-class certificate a student has to secure a greater percentage of marks for each subject than for a second-class certificate. The subjects in which the candidates are examined are identical with those prescribed for the college itself, viz., Agriculture, Veterinary, Chemistry, Botany, Geology, Land Surveying, Mensuration, Mechanics, Farm Book-keeping. (2) *Civil Engineering.*—Examinations conducted by the Principal of the Civil Engineering College. (a) Examination for Diploma as Assistant Engineer, Public Works department—This examination is held annually in December, and the test comprises Mathematics, Engineering, Surveying, Levelling, and Drawing and Estimating. (b) Examination for Diploma as Supervisor or Overseer, Public Works department. This examination is held in the month of May, and the subjects are the same as those for the preceding test, but the knowledge required for this examination is of a more elementary nature. The candidates are also tested as to their ability in conversing and writing easy sentences in Tamul or Teloogoo on topics connected with the Public Works department. (c) Examination for Certificate as Draftsman and Estimator. (d) Examination for Certificate as Surveyor. These examinations are held in the month of May, and the tests comprise "Surveying and Levelling," "Drawing and Estimating." No person can be employed as a draftsman in the public service, unless he holds a certificate from the Civil Engineering College. (e) Examination for admission to the Second and Special departments of the Civil Engineering College—This examination is held in April at the Civil Engineering College and at all the Public Works department head-quarters, at which the candidates present themselves. In the case of Military candidates, the examination is also held at the head-quarters of their regiments. The test comprises the English Language, English Dictation, and Arithmetic. (f) Examination for admission to the Accounts Branch, Public Works department—This is held biennially in March and September at the Civil Engineering College and at those Public Works department stations at which superior officers consent, at the request of candidates, to supervise the examination. The test comprises Arithmetic, English Dictation and Handwriting. (g) Examination in Tamul or Teloogoo of Military Probationers for the Second department, Civil Engineering College—This is held annually in July at the head-quarters of the "Q. O." Sappers and Miners, Bangalore. The subjects are translation from English into vernacular and vice versâ and writing idiomatic sentences. (h) Examination for Walker Scholarship—This examination is held once in two years in April at Mangalore, Cannanore, and Calicut, and comprises the subjects of Examination (*e*) and a colloquial test in Canarese or Malayalam. This examination is confined to natives of Malabar, Canara and the Neilgherries, and the successful candidate receives a scholarship of Rupees 13 per mensem tenable for two years at the Civil Engineering College, and is exempt from the payment of fees. (3) *Education.*—Comparative Examinations of the Lower Fourth and Fifth Classes—The Director of Public Instruction annually conducts the Comparative Examinations of the Lower Fourth and Fifth Classes of all Government schools and of such aided and "recognized" schools as are desirous of sending in their pupils for the test. The papers are drawn up and the answers valued by examiners appointed by the Director, who are mostly officers of the Educational department. The examina-

758. REWARDS FOR STUDYING LANGUAGES.—A conspectus of these as now given in the Presidency will be found in Vol. II, App. XCVII.

PUBLIC INSTRUCTION.

759. INTRODUCTION.—The general scope of Government educational measures can best be seen from their history, which is sketched in the foot-notes [1 & 2]. In the annual reports on public instruction the subjects treated of are arranged under

tions are held in the month of December and are intended to test the fitness of pupils for promotion to the next higher class. The subjects for the examination are (a) the English Language, (b) a Vernacular, (c) Arithmetic, (d) History and Geography, and (e) Euclid and Algebra. An examination in a second vernacular for Deputy Inspectors of Schools is also conducted by the Director in the month of August. The Director having deemed it necessary that a Deputy Inspector of Schools should be acquainted with more than one vernacular, has instituted this examination. The standard of the test is that of the University examination which the Deputy has passed, except in the case of Masters of Arts, who will be required to pass in the subjects prescribed for the B.A. Examination. The Deputy Inspectors of Schools are classified into several grades, and the confirmation of a probationary Deputy Inspector as well as the promotion of a permanent Deputy to a higher grade is regulated by their success in this and the special examination next noticed. Special Examination for Deputy Inspectors of Schools—This examination is held simultaneously with the above, and the subjects are (a) the general and office routine of a Deputy Inspector, (b) the standing orders of the Educational department, (c) the grant-in-aid code, (d) the history; topography, race and caste distribution and population statistics of the division in which the Deputy is serving. (4) *Medicine.*—Candidates for the grade of Apothecary appear before a Board of Medical officers appointed by Government and undergo two tests—one called the Primary Examination and the other the Final or Pass Examination—prescribed by Government in 1883. The examinations are held about the middle of June each year. (5) *Police.*—Departmental portion of the Examination of Officers in Law—At the request of the Board of Examiners, the Inspector-General of Police draws up a paper in the "Madras Police Orders" and Practice and values the answers thereto. The passing of this examination which is held in January and July entitles an officer to be confirmed in the grade of Assistant Superintendent and Superintendent of Police. The Inspectors' Test—An examination in the "Madras Police Orders" and Practice also conducted by the Inspector-General of Police is held annually in the month of December. Inspectors and Sub-Inspectors are required to pass this test before confirmation. Station-house Officers' Test—This examination which is held in the months of January, May and September of each year is conducted by the Deputy Inspectors-General of the Ranges. The text-books are the "Station-house Officers' Manual" and the "Manual of Special and Local Laws." Constables are required to pass this test before they are entitled to promotion. They are also examined in drill and ball practice before they are declared to have passed this test. Constables' Test—This is a purely vernacular test. No time is fixed for this examination, but the District Superintendents of Police, by whom it is conducted, hold it as often as necessary. The text-book is the "Constables' Catechism," and constables are required to pass this test before they are promoted to higher classes of the grade.

[1] SKETCH HISTORY OF GOVERNMENT EDUCATION THROUGHOUT INDIA.—*Indigenous education.*—The East India Company found four ancient methods of education at work; the instruction given by the Brahmins to their disciples; the tols, or seats of Sanscrit learning; the maktabs and madrissas, or schools and colleges of the Mahomedans; and a large number of village schools. The latter gave an elementary education to the trading classes and to the children of the petty landholders and well-to-do families among the cultivators; but they did not share in the endowments of the Government. (2) *Early English schemes of education.*—When the East India Company received charge of Bengal from the Delhi Emperor, it aimed only at discharging the duties fulfilled by the previous ruling power. It respected endowments made to educational institutions, and its earliest efforts were confined to the establishment of Mahomedan and Sanscrit colleges of the old types. The Calcutta Madrissa, or Mahomedan college, established in 1781 by Warren Hastings was the first educational institution founded by the British Government in India. It was followed in 1792 by the Sanscrit college of Benares. The discipline of the latter college was to be "conformable in all respects to the Dharma Shastra in the chapter on education." The scholars were to be examined four times a year in the presence of the Resident, "in all such parts of knowledge as are not held too sacred to be discussed in the presence of any but Brahmins." (3) *Native literature encouraged by Parliament.*—In 1813, on the motion of Mr. R. P. Smith, who had been Advocate-General in Calcutta, and obtained a seat in Parliament on his return, a rider was added to the India Bill, directing that a lakh of rupees should be appropriated "to the revival and promotion of literature, and the encouragement of the learned natives of India, and for the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories out of any surplus which might remain of the rents, revenues, and profits of our territorial acquisition." This vote was interpreted both in London and in Calcutta, to apply chiefly to the revival and encouragement of Hindoo and Mahomedan literature; and there can be little doubt that the grant was intended primarily, though not exclusively, for that object. The fund however was not utilized for ten years. (4) *Progress of education under Lord Hastings.*—Under the Governor-Generalship of Lord Hastings (1813—1823) a powerful impulse was given to the cause of education. Lady Hastings established a school in Barrackpore Park, and compiled treatises for the use of the scholars. Numerous vernacular schools were opened in the neighbourhood of Calcutta by Mr. May, the missionary, and by Dr. Carey and his colleagues, which received encouragement from the Government and the public. (5) *Calcutta Hindoo College.*—Intelligent Hindoos also felt the need of an education better adapted to the wants of the opening nineteenth century. In 1816 the Hindoo college was established in Calcutta, largely through the efforts of David Hare, a watchmaker, but with the full co-operation of the native community. The studies included the works of Locke, Adam Smith, Shakespere, Milton, and other writers. Lord Hastings accepted the office of patron of this institution. (6) *Poona College.*—The Poona College was founded in 1821. The Peshwa had annually distributed a large sum of money among the Brahmins noted for their learning. Mr. Chaplin, Commissioner of the Deccan, proposed, as a less objectionable method of spending the funds while the original object was in some measure kept in view, that part of the grant should be devoted to the support of a college. (7) *Committee of Public Instruction appointed.*—The fund voted by Parliament in 1813 had accumulated for ten years, when Mr. Adam distinguished his brief tenure of office by appointing a committee of public instruction to suggest measures for the better education of the people in useful knowledge, and the arts and sciences of Europe, and for the improvement of public morals. This enlightened movement was soon after strengthened by the receipt of an unexpected despatch from Leadenhall Street. Mr. James Mill, the historian, now occupied an important position in the India office. A proposal had been received from the Government of India to improve the Hindoo college at Benares, and the Mahomedan college in Calcutta, and to add to them a Hindoo college in the metropolis. It fell to Mr. Mill to draft the reply to this despatch, and he stated that "in professing to establish seminaries for the purpose of teaching mere Hindoo or mere Mahomedan literature, the Government bound itself to teach a great deal of what was frivolous, not a little of what was purely mischievous, and a small remainder indeed in which utility was in any way concerned. The great end of Government

orders from the Government of India in the following order :—(1) Introduction ; (2) General statistics ; (3) Controlling agencies ; (4) University education; (5) Secondary education; (6) Primary education ; (7) Schools for special or technical training ;

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should be not to teach Hindoo or Mahomedan learning, but useful learning." But Orientalism still maintained its ground in Calcutta. The parliamentary grant was accordingly with some trifling exceptions devoted for ten years longer to the promotion of studies, of which the mode, the medium, and the scope were altogether oriental in their character. (8) *Increased demand for European education.*—Meanwhile, a predilection for English continued to spread among the natives in and around Calcutta, and a demand for instruction in that language, and the acquisition of European science, was pressed with increased earnestness on the attention of the Board of Education. The Board itself was divided into two hostile parties; the Orientalists, headed by Dr. Wilson, who deprecated any interference with the patronage of Hindoo literature, and the Anglicists, as they were termed, the advocates of a European education through the medium of English, who were animated by the counsels of Mr. C. Trevelyan. The division in the Board brought its operations to a stand-still, and an appeal was made to Government. Mr. Macaulay was then a member of the Supreme Council, as well as President of the Board of Education, and he denounced with force the continued promotion of Orientalism, as tending not to support the progress of truth, but to delay the death of expiring error. "We are at present," he said, "a Board for printing books which are of less value than the paper on which they are printed was when it was blank, and for giving artificial encouragement to absurd history, absurd metaphysics, absurd physics, and absurd theology." The question was brought to a temporary settlement on the 7th March 1835, by a resolution of the Governor-General in Council, Lord William Bentinck, which stated that "the great object of the British Government ought to be the promotion of European literature and science among the natives of India, and that the funds appropriated to education would be best employed on English education alone." To qualify this decision however it was stated that no college or school of oriental learning was to be abolished, while the natives were inclined to avail themselves of it; and the stipends to the teachers and students were to be continued, though not renewed in case of lapse. It was directed that the publication of oriental works and of translations of medical and mathematical works into Arabic, which neither the teachers nor pupils could comprehend, should be at once discontinued. Lord William Bentinck's resolution encountered much opposition, and the Asiatic Societies in Calcutta and in London, as well as those on the Continent, came forward to deprecate it as a severe discouragement of the cultivation of oriental literature. Reply was made that whereas it was the duty of a liberal Government to patronize such labours as those of the oriental societies, and to make arrangements for the preservation of the ancient monuments of Indian civilization, whether in stone or manuscript; still it was a dereliction of duty to divert to the promotion of this object the scanty funds allotted to the education and improvement of the people. It was observed that it was impossible to discover how the gradual withdrawal of Government aid from the two or three colleges it had established could affect in any perceptible degree the cultivation of the sacred language of the Vedas. The encouragement of English was, on the other hand, one of the highest blessings which could be conferred on the country. Officially this controversy came to an end in 1839, and the question of the support of the study of oriental classics from state funds has since died a natural death. Nor has this controversy ever affected to any extent the Madras Presidency, where the only question connected with language has been that of the relative claims of English and the ordinary vernaculars as subjects of study or as the languages of instruction in secondary and elementary schools and of the substitution of Sanscrit for the vernaculars in the higher examinations in arts; and this question has been allowed to resolve itself practically, following the ordinary rules of demand and supply. (9) *Sir Henry Hardinge's resolution.*—Within three months after his arrival as Governor-General in 1844, Sir Henry Hardinge passed the memorable resolution, which held out the encouragement of office and promotion in the public service to the successful students of the Government colleges, as well as of private institutions; and thus gave the state the benefit of the talent which it had assisted to develop. This liberal measure was not fully carried out till after the establishment of the University of Calcutta, to which the various educational institutions in the Bengal Presidency were affiliated. (10) *Progress under Lord Dalhousie.*—The cause of education received special encouragement from Lord Dalhousie (1848–56). Mr. Thomason, the Governor of the North-West Provinces, had established a Government vernacular school in each revenue division of certain districts under his charge. The experiment was attended with such signal success that Lord Dalhousie resolved to extend the system to the whole of the North-West Provinces as well as to Bengal and the Punjab. At the suggestion of Mr. Bethune, the Legislative Member of Council, who devoted his time and his purse to the cause of female education, Lord Dalhousie officially announced that the education of females was considered by the British Government an object of national importance, and he was the first Governor-General who proclaimed this doctrine in opposition to native views. On the death of Mr. Bethune, he took on himself the support of the female school established by that gentleman. It was while engaged in devising plans for the improvement of education that he received the despatch of July 1854, which has been denominated "The Intellectual Charter of India." (11) *Principles of State education settled.*—In the despatch just mentioned the education of the whole people of India was definitely accepted as a State duty; and the Court of Directors laid down with fulness and precision the principles which were to guide the Indian Government in the performance of this great task. After the East India Company itself had ceased to exist, the principles of this despatch were confirmed by the Secretary of State in his despatch of the 7th April 1859. The purport of the two documents may be thus summarised. (12) *The Despatch of* 1854.—The Despatch of 1854 commends to the special attention of the Government of India the improvement and far wider extension of education, both English and Vernacular, and prescribes as the means for the attainment of these objects: "*a.*" the constitution of a separate department of the administration for education; "*b.*" the institution of Universities at the Presidency towns; "*c.*" the establishment of institutions for training teachers for all classes of schools; "*d.*" the maintenance of the existing Government colleges and high schools and the increase of their number when necessary; "*e.*" the establishment of new middle schools; "*f.*" increased attention to vernacular schools, indigenous or other, for elementary education; and "*g.*" the introduction of a system of grants-in-aid. The attention of Government is specially directed to the importance of placing the means of acquiring useful and practical knowledge within reach of the great mass of the people. The English language is to be the medium of instruction in the higher branches, and the vernacular in the lower. English is to be taught wherever there is a demand for it, but it is not to be substituted for the vernacular languages of the country. The system of grants-in-aid is to be based on the principle of perfect religious neutrality. Aid is to be given (so far as the requirements of each particular district as compared with other districts and the funds at the disposal of Government may render it possible) to all schools imparting a good secular education, provided they are under adequate local management and are subject to Government inspection, and provided that fees, however small, are charged in them. Grants are to be for specific objects, and their amount and continuance are to depend on the periodical reports of Government Inspectors. No Government colleges or schools are to be founded where a sufficient number of institutions exist capable, with the aid of Government, of meeting the local demand for education; but new schools and colleges are to be established and temporarily maintained where there is little or no prospect of adequate local effort being made to meet local requirements. The discontinuance of any general system of education entirely provided by Government is anticipated with the gradual advance of the system of grants-in-aid; but the progress of education is not to be checked in the slightest degree by the abandonment of a single school to probable decay. A comprehensive system of scholarships is to be instituted so as to connect lower schools with higher, and higher schools with colleges. Female education is to receive the frank and cordial support of Government. The principal officials in every district are required to aid in the extension of education; and in making appointments to posts in the service of Government, a person who has received a good education is to be preferred to one who has not. Even in lower situations a man who can read and write is, if equally eligible in other respects, to be preferred to one who cannot. (13) *Secretary of State's despatch.*—The Despatch of 1859 reviews the progress made under the earlier despatch, which it reiterates and confirms with a single exception as to the course to be adopted for promoting elementary education. While it records with satisfaction that the system

(8) Scholarships ; (9) Employment of students in the public service ; (10) Books. In the present article the order of remarks will be as follows :—a brief enumeration of educational institutions connected with the department classed according to

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of grants-in-aid has been freely accepted by private schools, both English and Anglo-Vernacular, it notes that the native community have failed to co-operate with Government in promoting elementary vernacular education. The efforts of educational officers to obtain the necessary local support for the establishment of vernacular schools under the grant-in-aid system are, it points out, likely to create a prejudice against education, to render the Government unpopular, and even to compromise its dignity. The soliciting of contributions from the people is declared inexpedient, and strong doubts are expressed as to the suitability of the grant-in-aid system as hitherto in force for the supply of vernacular education to the masses of the population. Such vernacular instruction should, it is suggested, be provided by the direct instrumentality of the officers of Government, on the basis of some one of the plans already in operation for the improvement of indigenous schools, or by any modification of those plans which may suit the circumstances of different provinces. The expediency of imposing a special rate on the land for the provision of elementary education is also commended to the careful consideration of the Government. (14) *Main feature of the two despatches.*—The main feature of the two despatches, which most distinguishes them from all previous orders on the same subject, is contained in the following extract from the Despatch of 1854 :—" It is well that every opportunity should have been given to those (the higher) classes for the acquisition of a liberal European education, the effects of which may be expected slowly to pervade the rest of their fellow-countrymen, and to raise, in the end, the educational tone of the whole country. We are, therefore, far from underrating the importance, or the success, of the efforts which have been made in this direction ; but the higher classes are both able and willing, in many cases, to bear a considerable part at least of the cost of their education ; and it is abundantly evident that in some parts of India no artificial stimulus is any longer required in order to create a demand for such an education as is conveyed in the Government Anglo-Vernacular colleges. We have, by the establishment and support of these colleges, pointed out the manner in which a liberal education is to be obtained, and assisted them to a very considerable extent from the public funds. In addition to this, we are now prepared to give, by sanctioning the establishment of Universities, full development to the highest course of education to which the natives of India, or of any other country, can aspire ; and besides, by the division of University degrees and distinctions into different branches, the exertions of highly educated men will be directed to the studies which are necessary to success in the various active professions of life. We shall, therefore, have done as much as a Government can do to place the benefits of education plainly and practically before the higher classes in India. Our attention should now be directed to a consideration if possible, still more important, and one which has been hitherto, we are bound to admit, too much neglected, namely, how useful and practical knowledge, suited to every station in life, may be best conveyed to the great mass of the people, who are utterly incapable of obtaining any education worthy of the name by their own unaided efforts ; and we desire to see the active measures of Government more especially directed, for the future, to this object, for the attainment of which we are ready to sanction a considerable increase of expenditure." On the same subject the Despatch of 1859 declared that " if Government shall have undertaken the responsibility of placing within the reach of the general population the means of simple elementary education, those individuals who require more than this may, as a general rule, be left to exert themselves to procure it with or without the assistance of Government." Education for the great mass of the people is not the sole object of either despatch. On the contrary, it is clear from the summary given in paras. 12 and 13 above that schools were to be maintained for " every condition of life," including schools of higher education intended for what may be called the higher classes. Nevertheless if any portion of the orders can be pronounced characteristic and distinctive, it is that portion which not only had never been enunciated before, but was opposed both to the earlier policy and to the reiterated views of the most influential educational agencies then in existence in India. The policy of 1854 has been expressly re-affirmed in the orders constituting the recent Educational Commission. (15) *Education Departments formed.*—On the publication of the despatch of 1854, steps were taken to form an Education Department in each of the territorial divisions of India as then constituted. At this point however the narrative can properly be taken up from that next given for this Presidency.

[1] SKETCH HISTORY OF EDUCATION IN THE MADRAS PRESIDENCY.—*Indigenous education found by the English.*—Indigenous education was universal in this Presidency, as in other parts of India, long before the commencement of British rule. In every Hindoo mutt or monastery and in every large town or village with Brahmin residents, instruction in some branches of Sanscrit learning, or in the Tamul classics and pooranas, has been from time immemorial a recognized feature; while almost every village, large or small, has from a very early date had its village school. The description of such education at the present day is equivalent to describing what it was a century or two back, for no change is perceptible. Some brief remarks on this subject will be found in the text. (2) *The first measures by the English at Fort St. George.*—The earliest record on the subject of education in Madras by the English settlers is a list of employés furnished to the Directors by the President and Council of Madras, as they stood on the 31st December 1678. In this list appears the name of " Ralph Ord, Schoolmaster," and he drew the then high salary of £50 per annum, equal to that of the junior member of council. He had landed in Madras in July 1678, only 38 years after the founding of the settlement. (3) *Proposals for education by the Madras corporation.*—The next reference to the subject is in a general letter of the Court of Directors to the Governor of Madras, dated 28th September 1687. This letter contains the draft of a proposed municipality for Madras, based on the model of those introduced by the Dutch into their eastern settlements, although the verbal form of the charter thus sketched is drawn from one of those constituting an English corporation. The suggestions concerning education are as follows :—" The Court of Aldermen may, by virtue of the powers granted by our intended charter, assess and levy a rate upon the inhabitants for the building of one or more free school or schools for teaching the English tongue to Gentoos or Moors or other Indian children, and for salaries to the schoolmasters, and by degrees for many other good works ; their constitution being so framed that our President and Council shall always influence their debates and resolutions." In March 1691 Governor Yale reminded the corporation that they had as yet done nothing in the way of providing schools, and demanded that the funds received for this and other unfulfilled purposes should be restored to Government, seeing that if the public " are not benefited, there is no reason why they should be losers by the corporation." In January 1792 the Court of Directors also called attention to the manner in which education had been neglected. It does not appear that anything special was done. (4) *Saint Mary's Charity School at Madras.*—When the old and new Companies amalgamated, to form the " United Company of Merchants trading to the East Indies," a clause was inserted in the new charter, binding the Company to provide schoolmasters in all their garrisons and superior factories, and in February 1712 the Directors wrote that they were determined to act up to this provision. A year previously, in 1711, the Society for Promoting Christian Knowledge had offered to the Directors to provide and maintain at Madras one or more charity schools through the agency of the Danish missionaries at Tranquebar, of whom the chief was the famous Ziegenbalg. In 1713 the Madras Government replied that they would do all in their power to aid these schools. Before this proposal could be carried out, the English inhabitants of Madras had convened a public meeting on the 28th October 1715, when it was resolved to establish a charity school for Protestant (European or Eurasian) children, giving them diet and education gratis. " While they are entertained in the school the boys shall be taught to read, write, cast accounts, or what they may be further capable of, and the girls shall be instructed in reading and the necessary parts of house-wifery." It is believed that this was the foundation of the school known as the Fort School, of which the female branch has long been closed. Saint Mary's Charity School, as it was officially styled, has now ceased to have a separate existence, being amalgamated with the Civil Asylums. (5) *Schools for natives opened by Danish missionaries from Tranquebar.*—The Danish missionaries above mentioned arrived in Madras in the early part of the year 1717, when, according to the Proceedings book of the Madras Government, Monday, 27th May, " the President lays before the

the mode in which they are supported; a more particular account of the same institutions classed according to the education given in them, with their curricula, and the testing examinations belonging to each; a description of indigenous

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Board a paper of proposals delivered him by Mr. Grundler, one of the Danish missionaries lately arrived from Tranque- bar, for erecting two charity schools in this city. It is agreed that liberty be given for erecting two charity schools— one for Portuguese in the English town, and another for Malabars in the Black Town." Thus first public effort to educate the "Malabars" or Tamul people was at the hands of missionaries. The pyall schools had received no state or municipal recognition. When these schools were established, the factors and other residents of Madras disapproved of the teachers being foreigners, and repeated protests were made to the home authorities. The Society for Promoting Christian Knowledge replied that no Englishman could be persuaded to go out. In 1746 English was employed as the language of the mission, being introduced by the missionary Geister. This was not effected without opposition on the part of the other German and Danish missionaries. However not long after this the German language was forgotten, and the missionaries themselves became Anglicized, founding the known families of the Kohlhoffs, Breithaupts, Pæzolds, Pohles, and others. (6) *Progress of schools for natives.*—Emulating the activity of Ziegenbalg and his colleagues the Company established in 1717 a school for native children at Cuddalore, and this was the beginning of the great system of Anglo-Vernacular education maintained under the patronage of Government in this Presidency. Mr. Ord had confined his labours to English children. The second schoolmaster whose name survives was named Radewitz, who was for many years the teacher of the Portuguese school established by Ziegenbalg in the Fort. He died in 1732. The Malabar or native school opened by Ziegenbalg, or under his direction, soon ceased to exist, for there was no public appreciation of the value of education, while the natives held aloof from the school because of its Christian character. When the Missionary Schultze settled in Madras in 1726, he re-opened this school, and, under his energetic direction, it soon filled with scholars, and was the origin of the present Vepery Anglo-Vernacular school, which has enjoyed an almost continuous existence ever since the original school was first located in Black Town. The different schools thus founded were maintained for many years entirely from funds provided by the "Society for Promoting Christian Knowledge." (7) *Educational work in Madras of the Society for Promoting Christian Knowledge; assistance rendered to the Tranquebar mission.*—Established in 1699 during the reign of William III for the purpose of spreading Christian knowledge, this society very soon found itself engaged in semi-missionary operations. To allow purely mission work to be carried on without interfering with the true work of the Society for Promoting Christian Knowledge its founders established in 1701 a new society, that for the "Propagation of the Gospel in Foreign Parts," and from that day to this the two societies have worked hand-in-hand, the Society for the Propagation of the Gospel providing missionaries, the Society for Promoting Christian Knowledge helping them with schools and furnishing books. One of the first objects of the society's concern has always been to promote the education of the young by liberally communicating its resources for the benefit of charity schools. In or about 1711 the Society for Promoting Christian Knowledge heard of the labours and requirements of the Tranquebar mission and sent them money, a printing press, paper, and other stores. In 1714 Ziegenbalg went to Europe for the purpose of promoting the cause he had engaged in. He was presented to the King of Denmark at Stralsund; and on visiting England was admitted to the presence of George I, by whom he was warmly encouraged. The bishops and the public received him with much cordiality; and the Society for Promoting Christian Knowledge in particular treated him with distinction, and aided him with presents of money, books, paper, and similar stores. After an absence of nearly two years, Ziegenbalg relanded at Madras in August 1716. Here, with the assistance of the Rev. William Stevenson, the garrison chaplain, schools were soon established at Madras and at Cudda- lore. The latter of these places Ziegenbalg occasionally visited; it was here, too, that eventually he died in February 1719 at the early age of 36. Mr. Stevenson went home. His schools fell off, and were finally closed. Under these circumstances, in 1726, Schultze resolved to remove to Madras. The Christian Knowledge Society approved of the undertaking and gave the necessary aid to promote it; the garrison chaplain entered into his views; the Governor and Council were enlisted in his favor; and under these favorable auspices Schultze was established in Black Town in a house purchased in 1728 expressly for the use of the new mission. In 1734 Mr. Schultze informed the society that in a recent visit of Mr. Sartorius to Fort St. David the Governor of that station had expressed his willingness to co-operate in the establishment of a mission in the neighbourhood. The society immediately authorized Mr. Schultze to take the necessary steps for the execution of this plan; and to prove their readiness to promote the full efficiency of their new missions, sent at the same time a munificent contribution towards the erection of a church and two schools at Madras. The amount of money sent out by this society in the years 1736 and 1737 was £3,200, which liberality enabled the missionaries to establish themselves effectually at Cuddalore, to which place Sartorius and Geister now removed. (8) *The same; occurrences during the French occupation of Madras.*—In 1746 the French under La Bourdonnais bombarded Madras; and having compelled Fort St. George to capitulate, they levelled a great part of Black Town for the purpose of improving the defences. Up to that time Black Town extended right across the esplanade to the Fort wall. In fact the burial ground, now remembered only by the monument to the daughter of Governor Yale still standing on the monument esplanade, was then in the heart of Black Town, and the best houses were those nearest the fort. Among them was the German Mission-house, which was thus destroyed. The church was converted into a magazine. Fabricius removed to Poolicat, then a Dutch settlement, where he and his converts were well received. While Dupleix was in possession of Madras and he believed the English could never return, he gave permission to a wealthy Armenian Roman Catholic merchant to build a church and mission buildings at Vepery on land which he assigned for the purpose. It was on the site of the present Vepery church, and, in fact, was the building which served as the Vepery church until the present building was erected. When the English regained Madras, the Armenian merchant and the Catholics generally were held to be intriguing with the French at Pondicherry. The Vepery premises were therefore confiscated by Government. In 1752 the local Government presented them to the Protestant mission. In November 1760 Count Lally besieged Madras; and Mr. Fabricius at Vepery was a second time exposed to the dangers and difficulties incident to such a state of things. Before he could obtain protection from the French officers, the native cavalry which accompanied the force had plundered him and his colleague Breithaupt of nearly all they possessed. The risk incurred by remaining amidst such scenes of violence induced the missionaries to remove, as on the former occasion, to Poolicat, where, though accompanied by a crowd of destitute and helpless followers, they were again most hospitably received by the Dutch. In February 1761, Madras having been relieved and the siege raised, the missionaries returned to Vepery. (9) *The same; the first printing-press at Madras.*—The year 1761 was also made remarkable by the establishment of the first printing-press in Madras. It was found at Pondicherry when that place was captured. The Government presented it to the mission, who thereupon set up the printing press at Vepery, which still remains one of the most perfect in this Presidency. (10) *The same; the first establishment for Eurasian children.*—In the year 1784 the Christian Knowledge Society having heard of the valuable institution in Bengal for the education in Christian principles of the children of English fathers by native mothers, voted a sum of £50 annually for the maintenance of a schoolmaster at Madras, who should be required to give instruction to that class of children. (11) *The same; the Military Orphan Asylums, and Dr. Bell's Madras system.*—In 1786 Government made another step by aiding the foundation of the Military Female Orphan Asylum. The buildings were presented to the Asylum committee by the Nawab of the Carnatic who purchased them for the purpose at a cost of Rupees 80,000. The Missionary Gericke was the first superintendent. The institution was highly successful, and led two years afterwards to the foundation of the Military Male Orphan Asylum. The opening of the latter marked an era in the history of elementary education not only in Madras, but throughout the world. Its first superintendent was the famous Dr. Bell, whose interest in education was so great that he served without a salary, so that funds might be provided for the improvement of the school. Want of means to provide for the great number of applicants for admission, combined with the fact that there were no competent teachers that could be engaged to assist him, led Dr. Bell to invent what has since been known as the monitorial system of education. Known at first as Dr. Bell's or the

institutions not brought under the operations of the department ; a description of various special institutions ; an account of the constitution of the controlling and teaching agencies ; remarks on financial, statistical, and general questions.

Madras system, it at once revealed how education could be both efficient and inexpensive, and thus became the basis of all modern progress in elementary education. What are known as the Lancasterian, Pestalozzian, Glasgow, monitorial, and pupil-teacher systems have all grown out of this, and every public elementary school in England is now conducted on one or other modification of the Madras system. (12) *The same; provincial schools for natives.*—About the same time Mr. Sullivan, then Resident at Tanjore, invited Swartz to accompany him in the capacity of an interpreter on a visit to the Maravar country. At Ramnaud, Mr. Sullivan acquainted Swartz with a plan he had devised for instructing the natives, and establishing schools in every province. This plan was that a seminary should be established at Tanjore, under the missionary's personal supervision, for the education of schoolmasters, who should afterwards be located in the several villages of the country at the expense of the petty princes. The Rajah of Ramnaud was spoken with on the subject, and thought "it would be an excellent plan," wishing "there were such schools in every village." His minister also approved it, and the Rajah gave a written promise to settle a monthly sum, afterwards fixed at 24 pagodas to be paid to the school. At Shivagunga also the local ruler approved the plan, and promised to give a village for the support of a schoolmaster. He subsequently gave two villages. The Governor of Madras and the Nawab of Arcot were next written to, and both highly commended the plan. The Rajah of Tanjore promised 40 pagodas per month for the support of the school to be established in or near the fort. These provincial schools answered exceedingly well. In those at Tanjore and Combaconam there were already 40 scholars; while in the Tamul school at Tanjore there were 99 boys, of whom 35 were charity boys maintained and clothed by the mission. Two English schoolmasters were employed for the provincial schools, and four masters were engaged for the Tamul school. (13) *The same; origin of the Civil Orphan Asylums.*—By the will of Mr. Gerickè, who died in 1803, it appears that an English orphan asylum for children not eligible for the Military asylums had existed in connexion with the Vepery Mission for many years previously. This orphanage was probably the origin of the present Civil Orphan Asylums. The school continued to flourish, and in 1793 the Rajah of Tanjore sent his son and successor Sarbhojee to be educated there under the Missionary Gerickè. Sarbhojee remained in the school from 1793 to 1797. (14) *The same; transfer of mission work to another society, and miscellaneous operations.*—Meanwhile the printing press had not flourished, and in 1810 the press had to be closed because there were no means of paying the workmen, although there were ample stores of paper, type, &c. This was the more to be regretted, because from the first the profits had been destined for the support of schools. Later the press was re-organized. This was owing to the establishment in 1815 of the District Committee of the Society for Promoting Christian Knowledge which relieved the missionaries of the care of secular matters and infused new vigour into the whole work. Madras education is much indebted to the zealous work of this little known but very useful body. At Tinnevelly Mr. Hough reported that he had, under the auspices of the society, established nine schools, in which were educated 283 children, the total annual expense of which amounted only to 357 rupees. In 1815 a change of organization was made. It had for some time been felt that the Christian Knowledge Society, from the nature of its constitution and its peculiar objects and principles, labored under several disadvantages in its attempts to conduct so extensive a missionary establishment; and in the year 1825 the society's missions were by mutual agreement transferred to the Society for the Propagation of the Gospel in Foreign Parts, a district committee of which was established in Madras in the year 1826. The terms on which this transfer was made appear to have been understood as follows:—that the Christian Knowledge Society should continue to maintain those missionaries, who, from their having been for some years in their service, could not with propriety be unceremoniously transferred to another society; that it should retain its right to the property purchased and acquired in the several missions during its administrations of their affairs; and that by means of its press at Vepery and its grants of books, stationery, &c., it should maintain or supply schools for the education of the natives; and thus by furnishing them with European knowledge it should facilitate the operations of the sister society, which henceforth undertook the whole management and direction of the missions. From this time, therefore, the history of the missions belongs to the Society for the Propagation of the Gospel. The press was still managed by the Society for Promoting Christian Knowledge and became each year more successful. The paper, presses, English type, ink, binding materials, &c., were supplied from England at great expense while the types for the several eastern languages were cut and founded in the establishment itself. The benefits derivable to the natives from this institution were great and various. Elementary school works in a variety of languages were supplied most liberally to the several missions: the money proceeds of the establishment, after the payment of the workmen, went to form a fund called the Native Education Fund, dedicated, as its name imports, solely to the maintenance of native schools in various parts of the Madras Presidency. (15) *The same; commencement of female education.*—Under the direction of the committee, the Vepery Grammar school was repeatedly enlarged, and became, till the establishment of the Free Church Mission, the chief educational agency in Madras. There were also two "charity schools," male and female, for the Christian children of Vepery, and, lastly, male and female schools, where all native children that came were taught without charge. The Society for Promoting Christian Knowledge were thus the pioneers of female education. The proportion of female scholars at Vepery at this time is especially striking; being 654 to 4,290 boys, or 1 girl for every 6½ boys. (16) *The same; Bishop Corrie's school.*—Bishop Corrie's school was opened as the "Madras Grammar school" on the 1st July 1836 under the advice of Bishop Corrie and with the aid of the Christian Knowledge Society. (17) *Work of the London Missionary Society.*—In 1805 the London Missionary Society commenced its work in Madras. The labours of the missionaries at Serampore had drawn the attention of the society to India, and, as soon as there was any liberty of entrance, a missionary was sent to Madras, and he at once opened a school. From that day to this the London Mission has honorably distinguished itself in education. In recent years it has not aimed at academical distinction, but its schools are efficient and popular, the central institution in Armenian street is well attended. (18) *Work of the Wesleyan Mission.*—This was founded in Madras in the year 1819 when Messrs. Squance, Lynch, and Close came from Ceylon to establish a misson there. In Ceylon schools had formed a most important part of the mission work, and have continued to flourish there from that day to this. Thus in the year 1819 when the Madras mission opened, the society maintained no less than 87 schools in Ceylon, attended by 5,014 children, of whom many were girls. Probably no other mission to the east ever maintained so perfect a school system as that which existed in Ceylon. The great institution at Jaffna was in after-years a sort of University, from which issued large numbers of Native Christians, who have since risen to eminence in both Ceylon and Southern India. It was to be expected, therefore, that schools should form an important part of the early work of the Wesleyan Mission in Madras. Before the society had been a year in Madras it had established two schools, one at Royapettah and the other in Black Town. The former was the origin of the present Royapettah Anglo-Vernacular school, which has enjoyed a continuous existence though not always in the same premises from that to this, and is therefore only second to the Vepery Anglo-Vernacular school in point of age. In 1823 two new schools were opened at Negapatam. (19) *Operations by the Government; the Tanjore schools.*—No other missionary body established schools for a long period after the London and Wesleyan Missionary Societies were in the field. Attention may be turned here to the operations of this state in connection with education. The Protestant mission, conducted successively by Messrs. Ziegenbalg, Gerickè, Kiernander, and Swartz, under the patronage as has been seen of the Society for Promoting Christian Knowledge, had had schools at their several stations of Madras, Cuddalore, Tanjore, and Trichinopoly, in which they instructed the natives, and in aid of which they obtained occasional grants from the local Governments, and permission from the Court of Directors to receive from the society in England various supplies free of freight. In 1787 the Court of Directors authorized a permanent annual grant towards the support of three schools which had been established with the sanction of the respective Rajahs at Tanjore, Ramnaud, and Shivagunga, of 250 pagodas each. These schools were under the direction of Mr. Swartz. The Court further directed that a similar allowance

760. Description of Educational Institutions according to upkeep.—Omitting for the moment the Madras University, and such institutions as deal with special or professional instruction, the remainder of the institutions of the Presidency in

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should be granted to any other schools which might be opened for the same purpose. According to the books of
establishment, the charge on this account was for two Protestant schools at Tanjore and Combaconam Rupees 4,200
per annum, together with a pension or allowance to Mr. Kolhoop, a retired teacher, of Rupees 420, making a total of
Rupees 4,620 per annum. In 1824 the widow Swartz enjoyed a pension from the British Government of two
pagodas per month at Negapatam, and an unmarried female of the same name a monthly allowance of one fanam.
(20) *The same; Sunday School at the Mount.*—In January 1812 a Sunday school was established at St. Thomas' Mount,
at the suggestion and under the direction of the Military Chaplain at that cantonment, and by the voluntary contri-
butions of several Europeans at the Presidency. The object of this school was to afford elementary instruction on the
Lancasterian plan to the half-caste and native children of the military and others resident there. The object as well
as the plan of tuition being highly approved by the Government, an endowment of 300 pagodas per annum was granted
from the 1st January 1812. (21) *The same; the Cuddapah scheme.*—In 1814 Mr. Ross, the Collector of Cuddapah,
suggested that great advantages would result from giving education to the natives of India, and offered to the
consideration of Government a plan for providing proper education and moral instruction for young men, particularly
Brahmins, from the age of 12 or 13 to that of 18 or 20, and by establishing an institution for education in every district.
The subject was referred to the College Board for their consideration and report. The Government, however, enter-
taining great doubt whether the proposed measure would be found of sufficient efficacy to answer the end proposed,
and observing that it admitted of a limited experiment, authorized such an experiment to be made in Cuddapah under
the superintendence of Mr. Ross, whose superintendence they observed afforded the best prospect of success. Mr. Ross
was at the same time cautioned against incurring any considerable expense, or giving any pledge in the confidence of
success, which, in the event of failure, might be found to be inconvenient. He died not long afterwards, and no report
of his further proceedings with respect to this object can be traced in the records. (22) *The same; enquiries
instituted by Sir Thomas Munro.*—On the 2nd July 1822, Sir Thomas Munro, the Governor of the Presidency, recorded
a minute, recommending as an object of interest and importance that the best information should be obtained of the
actual state of education in its various branches among the native inhabitants of the provinces under the Madras
Government. A circular letter was accordingly addressed to the several Collectors. In June 1826 the Government
forwarded to the Court of Directors the several returns which they had received from the Collectors, accompanied
by an abstract of those returns, of which the following is a summary:—(23) *The same; abstract of the replies received.*—
The schools then existing in the country were for the most part supported by the payments of the people who sent their
children to them for instruction, the rate of payment for each scholar varying in different districts, and according
to the different circumstances of the parents of the pupils, from one anna to four rupees per mensem; the ordinary
rate among the poorer classes appearing to be generally about four annas, and seldom to exceed half a rupee.
There were endowments for the support of schools only in the seven districts next noted. "Rajahmundry."—There were
in this district 69 teachers of the sciences who possessed endowments in land, and 13 who enjoyed allowances in money
granted by former zemindars. "Nellore."—In this district certain individuals, Brahmins and Mussalman, were in
possession of allowances in land and money granted by the Carnatic Government for teaching Vedas, &c., and Arabic
and Persian respectively, to the amount of Rupees 1,467 per annum. "Arcot, Northern Division."—There were in this
district 28 colleges, supported by manyams and merahs, granted by former Governments, yielding Rupees 516 per
annum, and six Persian schools maintained at the public expense, at an annual charge of Rupees 1,361. "Salem."—
There were inam lands in this district estimated to yield Rupees 1,109 per annum, which were appropriated to the
support of 20 teachers of theology, &c., and one Mussalman school, which had land for its support, yielding annually
Rupees 20. "Tanjore."—There were in this district 44 schools and 77 colleges, which were supported by the Rajah.
There was no school or college endowed particularly by the Circar; but the free schools maintained by the mission
established in Tanjore were stated to possess a sarwamaunyam, the annual value of which was estimated at Rupees
1,100. "Trichinopoly."—There were in this district seven schools, which possessed endowments in land to the extent
of 46 cawnies, granted by former Governments. "Malabar."—There was in this district one college supported by the
Zamorin which had also some land attached to it. The Collectors of the four districts next mentioned made returns to
the following effect. "Salem and Coimbatore."—It was admitted by the Collectors of these districts that public endow-
ments for the advancement of learning had been diverted from their original purpose or resumed. In the former
district the value of land so diverted was estimated at Rupees 384; in the latter at Rupees 2,208. "Bellary."—The
Collector of this district stated that, although none of the institutions for education at present existing in it derived
support from the State, there was no doubt that in former times, especially under the Hindoo Governments, very large
grants, both in money and in land, were issued for the support of learning, and he further stated his opinion that many
of the yeomiahs and shrotriems, which were then held by Brahmins in the district, might be traced to this source. Of
the correctness of this suggestion, the Revenue Board entertained considerable doubts. "Canara."—The Collector of
this district stated generally that there were no colleges in Canara for the cultivation of abstract science; neither were
there any fixed schools and masters to teach them. There was no instance known of any institution of the above de-
scription having ever received support in any shape from the former Government. In Canara education was conducted
so much in private, that any statement of the number of private schools, and of the scholars attending them, would be
of little or no use, but on the contrary, rather fallacious, in forming an estimate of the proportion of the population
receiving instruction. (24) *The same; Sir Thomas Munro's remarks thereon.*—These reports (with the exception of that
of the Collector of Bellary) furnished no answer to the inquiry respecting the books generally read at the schools, except
that the Shastras and Vedas were read, and that the sciences of theology, astronomy, logic, and law were taught but
chiefly privately. "From these reports," Sir Thomas Munro remarked, "it appears that the number of schools, and of
what are called colleges in the territories under the Presidency, amount to 12,498, and the population to 12,850,941, so
that there is one school to every 1,000 of the population; but, as only a few females are taught in schools, we may
reckon one school to every 500 of the population." The male population he estimated at 6,425,000. The proportion of
this number, "between the ages of 5 and 10 years, which is the period which boys in general remain at school," he
took at one-ninth, or 713,000. This he took to be the number of boys that would be at school, if all the males above 10
years of age were educated; but the number actually attending the schools appearing to be not more than 184,110, it
followed that not quite 1 in 4 of the male population enjoyed the benefit of a school education, and that the female
population was almost wholly destitute of it. But taking into this account the probable numbers taught at home, (which
the Collectors' returns did not state, excepting that in Madras the private scholars amounted to 26,963, or above five
times more than those taught in the schools), Sir Thomas Munro considered it probable that the number of the male
population who then received education was nearer to one-third than one-fourth. The practice of private tuition, he
observed, varied considerably. It was not unfrequent in any part of the country, but the proportion was very different
in different classes. In some it was nearly the whole; in others it was hardly one-tenth. He further observed that,
low as the state of education in India was admitted to be, compared with that of England, it was even then, he thought,
higher than it was in most European countries at no very distant period. "It has no doubt," he added, "been better
in earlier times, but for the last century it does not appear to have undergone any other change than what arose from
the number of schools diminishing in one place and increasing in another, in consequence of the shifting of the popula-
tion, from war and other causes." The ignorance of professed teachers and poverty of parents were considered as the
causes which now combine to keep education in a low state. Owing to the comparatively great number of professed
teachers, the number of scholars attached to each was small, and the monthly rate paid by each scholar did not exceed
from four to six or eight annas. So that teachers did not earn more than six or seven rupees monthly, which was not
considered an allowance sufficient to induce men properly qualified to follow the profession. To remedy these defects

connection with the Educational department may be divided, according to the mode in which they are supported, into four classes as follows. (*a*) Public institutions under the direct management and control of the Educational department and

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Sir Thomas Munro suggested the endowment of schools through the country by the Government. As a preliminary measure, he proposed a school for educating teachers at Madras, on the plan suggested by the Madras School Book Society, towards which he recommended that the Government should allow 700 rupees per month; also, that two principal schools should be established in each Collectorate—one for Hindoos and the other for Mahomedans, and that hereafter, as teachers could be found, the Hindoo schools should be augmented, so as to give one to each Tahsildarry, which would be about 15 to each Collectorate. The Mahomedan population not amounting to above one-twentieth of the Hindoo, it was considered sufficient to establish one Mahomedan school in each Collectorate, except Arcot and a few other Collectorates, where the proportion of the Mahomedan population was greater. "Whatever expense," Sir Thomas Munro added, "Government may incur in the education of the people, will be amply repaid by the improvement of the country; for the general diffusion of knowledge is inseparably followed by more orderly habits, by increasing in industry, by a taste for the comforts of life, by exertion to acquire teem, and by the growing prosperity of the people." The minute of Sir Thomas Munro concluded by recommending the appointment of a Committee of Public Instruction, and by an expression of the most entire confidence in the final success of the measure, although he concurred in the opinion that that success must be progressive and would be slow. (25) *The same; appointment in* 1826 *of a Committee of Public Instruction in accordance with Sir Thomas Munro's views.*—With a very slight modification, the Council concurred in the President's suggestions, which were accordingly recommended for adoption by the Court of Directors, and the following gentlemen were appointed a Committee of Public Instruction at Madras:—H. S. Græme, Junior, W. Oliver, John Stokes, and A. D. Campbell, Esquires. A disbursement of Rupees 45,000 per annum was authorized, inclusive of Rupees 6,000 per annum, and exclusive of a donation of Rupees 3,000 in aid of the funds of the Madras School Book Society, whose benevolent labors were warmly eulogised, and a confident persuasion expressed that they would, by furnishing good school books, materially contribute to the attainment of the end for which the committee had been instituted. (26) *The same; the Normal school and Tahsildarry schools.*—The first effort of the new Committee of Public Instruction was the establishment of a normal school for the training of teachers, for which accommodation was provided in the building used by the College Board for the examinations of the junior civil servants and for other purposes. An English head master was retained on a salary of Rupees 300 a month, and an arrangement was made by which the services of the head masters in the oriental and vernacular departments under the College Board were rendered available to the committee at a trifling cost. Having made their arrangements for organizing the teaching department, the next step taken by the committee was to procure forty students to be trained at the central school in Madras as teachers for the projected collectorate schools. It was considered desirable that the candidates for these situations should be procured from the districts in which they were intended to serve, and the committee accordingly entered into communication with the principal civil authorities in the provinces, and requested them to select two youths from each district—one Hindoo and one Mahomedan, and to send them to the central school to be prepared for the situation of collectorate teacher. To each of these students, during the period of their studentship, a stipend was assigned of Rupees 15 per mensem, being the full amount of salary they were eventually to receive as teachers; the committee being of opinion that this sum was the lowest, which with the reference to the expense of repairing to the Presidency and the increased cost of living there, would induce respectable natives to join the institution. In regard to the selection of candidates, it was suggested that the persons to be chosen should be respectably connected, about the age of 18 years, and distinguished for good natural talents. In the case of Hindoo candidates a preference was to be given to Brahmins. The committee had not entertained the plan of training teachers at the Presidency for the tahsildarry schools, but they looked to the superintendence of the future collectorate teachers as the means of introducing the necessary improvements into the inferior schools. In all their communications both to the Government and to the provincial authorities, the committee laid great stress upon the necessity of securing the sympathy and co-operation of the people. With this view the selection of the masters was left to the principal inhabitants of the towns—a measure which resulted in the appointment of a number of very incompetent persons, inferior to the generality of the village schoolmasters, and who had nothing to recommend them but their influence with those to whom the election was entrusted, and their inability to provide for themselves in any other way. The salary of the tahsildarry teachers was fixed at 9 rupees a month, the amount originally proposed by Sir T. Munro; and on the ground that "the object was to give the inhabitants a good education, and to enable them to get it cheaper than they formerly did," the teachers were restricted from receiving from their scholars any fixed payments beyond "the usual voluntary fees and presents," and were directed to afford gratuitous instruction to such as might be considered to require this indulgence; the decision of this point being left with those members of the village communities who were selected to superintend the schools. In addition to the tahsildarry schools in the provinces, of which 61 were eventually established, nine schools under a similar designation were organized in the town and suburbs of Madras, under teachers trained for the purpose in the central school. These schools were subjected to the monthly inspection of the native head masters at the college, and they appear to have been attended with very tolerable success. In them as in the tahsildarry schools in the provinces, the instruction imparted was entirely vernacular, the study of English being reserved for the central collectorate schools. (27) *The same; appointment of a Native Education Committee and their proposals.*—It was soon found that no part of the new educational scheme worked well, except the Madras schools. The normal school became very successful, and pupils flocked to it, not to become teachers, but to gain a good English education for themselves. The lower or tahsildarry schools in Madras town were also popular and useful, but in the mofussil nothing succeeded, as there was no provision for due inspection. In 1834 the Board of Public Instruction proposed that the normal school should be enlarged, that the ordinary school should be separated from it and established as a separate central model school, that the Madras town tahsildarry schools should be increased to 20, and that Rupees 500 per mensem should be expended in the preparation of suitable school books. After some months' further deliberation, it was determined that the tahsildarry and collectorate schools should be at once abolished, and that the department of public instruction should be entrusted to a board of gentlemen whose other avocations were less onerous than those devolving on most of the members of the College Board. A new committee was accordingly appointed, under the designation of "the Committee for Native education," consisting of five members, with a member of council as president. The propositions of the new committee were comprehensive. They involved, first, the immediate establishment of four English schools, to be located in convenient parts of Black Town, Triplicane, and St. Thomé; second, the establishment of a normal class for training teachers, as early as practicable, in connexion with the best school at the Presidency, whether a Government school or otherwise; third, the establishment of a college, as soon as the materials for such an institution were to be procured, and the engagement of a well-qualified person to lecture at the college and teach the normal class, as well as to exercise a general superintendence over all the Presidency schools; fifth, the award of premiums to the teachers of the best-conducted schools. The part of the plan which the committee considered to be susceptible of immediate adoption was the establishment of the four elementary schools, from which pupils were eventually to be qualified for instruction in the normal class and in the college. It was proposed that the four elementary schools should be open to all classes, and so located as not to interfere with the English schools already in existence; that each school should have a European head master, with a salary of Rupees 130 together with half the school fees, with an allowance of Rupees 20 for house-rent and a native assistant on a salary of Rupees 50, and that from each pupil a fee should be exacted of half a rupee per mensem, "to ensure regularity of attendance and keep up an idea of the value of education and to leave room for competition on the part of enterprising native teachers." The schools were to be so arranged as to admit of the instruction of from 80 to 100 scholars each. They were to be placed in competition with each other and with other existing schools by periodical public examinations, open to all, at which rewards were to be given to the teacher of the best-taught school, whether supported by Government or not, and it was pro-

maintained from Provincial Funds, supplemented in a few cases by endowments, and in all cases by fees, which are paid into the treasury and credited to Provincial Funds; these are called Government institutions. (*b*) Public institutions

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posed that to the best-taught school of whatever description the normal class should eventually be attached. (28) *Suspension of Government educational measures.*—These proposals were not however taken up by Government. The central normal school alone was re-modelled, the system of gratuitous instruction being abandoned, and each pupil being required to pay a fee of half a rupee per mensem, and also to purchase his own class-books. Affairs remained in this state until 1839. (29) *The Scottish Mission schools.*—Meanwhile a new and very vigorous educational agency had entered the field, for in April 1837 Mr. Anderson opened his school. This was an era in the history of Madras education, and it is necessary to note here the progress of what was first known as the mission of the Church of Scotland and afterwards as the Free Church Mission. This educational agency was one of the last to come into the field, but mainly owing to the great energy and ability of two missionaries, the Revs. John Anderson and William Miller, has grown to be one of the most important in the Presidency. In June 1835 the Rev. Messrs. Bowie and Lawrie, Scotch Chaplains, had established at Madras the St. Andrew's school; and, after collecting funds from friends in the Presidency, they had applied to the Church of Scotland for a missionary, with a view to the establishment of an institution like that commenced at Calcutta by Dr. Duff in 1830. In response to this invitation the Rev. J. Anderson was sent from Scotland in 1836. He proceeded first to Calcutta in order to observe the modes of instruction and discipline at Dr. Duff's institution at that city. After a short stay there he came to Madras in February 1837, and at once set to work. St. Andrew's school was carried on in the compound now occupied by the Government Eye Infirmary. Mr. Anderson urged its removal into the city, with a view to benefit more effectually the dense native community. A suitable two-storied house was hired in Armenian street; and here, on April 3, 1837, he began his labours with 59 Hindoo boys and young men. In January 1839, Mr. Johnstone came to assist Mr. Anderson. His arrival was the signal for an extension of the work, and a branch school was opened at Conjeeveram, in May 1839, with eleven pupils. Mr. Frederick Cooper, Company's Medical Officer at Nellore, had established, some years before, a school for Teloogoo and English, and having intimated a desire to connect it with the mission, Mr. Anderson went to Nellore to judge how far it would be advisable to accept the proposal. This led to the annexation of the Nellore school and property to the mission in August. In this year the mission made yet another step. Mr. Anderson was invited by Mr. W. A. Morehead, then Judge at Chingleput, to supply a teacher to the school which he had induced the natives of the place to set up. This led to the adoption of Chingleput as a new branch station. Up to this time the mission had been connected with the Established Church of Scotland, but in 1843 when the Free Church seceded on the question of patronage and State interference, all the Indian missionaries joined the seceding Free Church, and carried with them, after an amicable discussion, the whole of the mission work. It is, therefore, only from 1843 that the Free Church dates, although there was no break in the continuity of the mission. By the end of 1843 the schools had altogether recovered, and their numbers exceeded those of any former year. In February 1845 the Established Church of Scotland re-opened their own mission with a large school, the origin of the institution now on the North Beach, with branch institutions at Vellore and Arconam. This soon became full of scholars without in any way diminishing the number at Anderson's school, so that the cause of education was again benefited. In 1853 Mr. Johnstone died, and similarly in 1855 Mr. Anderson. From that time a great declension fell upon the mission. None could be found to tread in the steps of the founders of the mission. Many took up the task, but the climate and the magnitude of the labours involved caused the retirement of one after another till it was difficult to get any to succeed them. Matters continued unsettled till the arrival of the Rev. W. Miller in 1863. The history of the schools since then is briefly mentioned in the foot-note on Protestant Missions in chapter IX, article Ecclesiastical. (30) *Patcheappah's schools.*—These also call for notice before proceeding to an account of the final arrangements made by Government in development of an educational system. The founding of Patcheappah's schools marks indeed an era in the history of Madras education, as it was the first example of intelligent natives of various castes combining to aid the cause of popular instruction. Patcheappah, in whose name these institutions are founded, was a wealthy Hindoo, who, dying in the last century, left one lakh of pagodas by his will for the establishment of charities, chiefly of a religious character, but in part dedicated to objects of general benevolence. The Advocate-General, Sir Herbert Compton, having discovered that these charities were totally unperformed, and the funds spoliated by the successive executors of his will, filed an information in the Supreme Court, and obtained a general decree against the party finally liable for an account of the fund, to be paid with accumulated interest—amounting to many lakhs of rupees—and also for the performance of the charities. In the whole there were finally collected to the credit of the charities nearly eight lakhs of rupees. A scheme was prepared, whereby, in due accordance with the provisions of the will, and without trenching upon any specific religious or benevolent charities mentioned in the will, it was proposed that all the accumulated sums beyond one lakh of pagodas (*that is*, upwards of four lakhs of rupees with all accumulating interest) should be devoted to educational establishments in various parts of the Presidency, and particularly at Madras. The scheme provided all details for the quality, localities, subjects of instruction, and governance of these institutions; and they were all finally incorporated in a decree of the court. After some years directions were given, under Lord Elphinstone's government, for the Board of Revenue making such orders as were necessary to carry out the decree of the Supreme Court and the wishes of the Court of Directors. A school in Black Town was established in January 1842, for affording gratuitous education to the poorer classes of the native community in the elementary branches of English literature and science, coupled with instruction in Tamul and Teloogoo. The high school of the Madras University was then in its infancy, and, as according to the rules of that institution, no boy was eligible for admission who could not read English with some fluency, the want of a school of this primary nature was urgently felt by the rich as well as the poor. Further, as the education was imparted gratis, according to the fundamental rules of the institution, the sphere of its usefulness became wider and wider, till its numerical strength surpassed all expectation, and the trustees found themselves necessitated, though unwillingly, to restrict the rapid influx of pupils, and to refuse to listen to pressing demands for admission. It was the original intention of the trustees to establish a few schools in the provinces contemporaneously with the central institution in the Presidency; but circumstances deterred them from engaging in the task. The central school was, therefore, first established and conducted under their immediate supervision. Emboldened by its success, a branch school was then opened at Conjeeveram in the year 1846, on a limited scale, to be extended in case it should work to their satisfaction. There were, in 1855, 64 boys studying in the new school which imparts instruction in English, Tamul, and Teloogoo. The branch school at Chidambaram was opened in the year 1850. The number of scholars on the rolls of the institution at the end of 1854 was 65. About the same time that the central institution was established in Black Town an endowment was founded in the high school of the Madras University, with the view of providing education in the higher branches of literature and science to lads in poor circumstances, but deserving of encouragement. Those that enjoyed the benefit of this endowment were divided into two classes, called Patcheappah's Free and Endowed Scholars; the former had their school fee paid from the endowment, and the latter were in receipt of monthly stipends. The trustees also gave great aid to certain vernacular institutions established in and about Madras. These institutions are founded on systematic principles, and afford to the young useful instruction in Tamul and Teloogoo, in some instances combined with Sanscrit. The foundation stone of the fine hall of this institution was laid by Mr. George Norton, Advocate-General and patron of these educational charities, in the midst of a vast concourse of the native inhabitants of Madras on the 2nd of October 1846. In the same year the Patcheappah trustees took over the charities of another rich native named Govindoo Naidoo. In 1856 scholarships were given in this benefactor's name at Patcheappah's schools, and later on a separate primary school was opened from the same funds. The new institution was called "Govindoo Naidoo's Primary School," and was opened in 1864. In the year 1869 a third school of equal importance was established by means of a bequest from C. Sreenivassa Pillay, who had been for several years president of Patcheappah's charities. (31) *Summary of the Educational institutions other than those of Government established between* 1790 *and* 1854.—The

under the direct management of District Boards and Municipalities ("Local Fund Schools" and "Municipal Schools"), or of committees acting under the control of Government, and mainly supported from public funds, Local, Municipal, or Pro-

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principal of these may here be summarized. The S. P. C. K. established the St. Peter's schools at Tanjore in 1790; and institutions at Sawyerpooram and Vethiarpooram, in 1844 for training Mission agents. In 1848 Sullivan's Gardens Seminary, Madras, was opened for the training of catechists and schoolmasters. The C. M. S. started an institution for training teachers at Palamcottah in 1836, and what is now the Noble College at Masulipatam in 1841. In 1849 it established also a training institution at the last named station. In 1837 the "General Assembly's Institution" was started at Madras. From this have resulted the "Free Church Institution and Madras Christian College;" and "the Church of Scotland Institution;" with three branch schools of the Free Church established at Conjeeveram in 1839, and at Chingleput and Nellore in 1840. Patcheappah's Central Institution, Madras, supported by funds that had accrued from the accumulated interests on a native bequest for charitable purposes, was established in 1842, under an order of the Supreme Court; with branches started at Conjeeveram and Chidambaram in 1846 and 1850 respectively. St. Joseph's College, Negapatam, was established in 1846 by the Jesuits of the Madura Mission. In 1851 the Wesleyan Central Institution, Royapettah, Madras, was opened. In 1853 the London Mission established a central school in Black Town, Madras. Two institutions mainly, though not exclusively, for English-speaking boys date from 1836, viz., Bishop Corrie's Grammar school (Protestant); and St. Mary's Seminary (Roman Catholic). Besides the above, there were several schools for English-speaking pupils, many of long standing, as the Military Orphan Asylums, Madras, 1786 and 1788; the Civil Orphan Asylums, Madras, 1815; St. Mary's R. C. Orphanage and day schools for girls, 1840; John Pereira's, Madras, boys and girls, 1840; the Vepery Poor schools, 1841; the Fort St. George Charity school, and the schools at Cuddalore, Tripassore and Vellore mainly for children of pensioners. Among the earliest schools for native girls there were,—the Free Church day school, Madras, 1841; the Free Church boarding school, Madras, 1842; the Church Mission boarding schools in Tinnevelly from 1837; the S. P. G. Mission boarding schools in Tinnevelly, 1842; the Free Church day schools at Chingleput and Conjeeveram, 1845. The Native Female Education Society's central school, Black Town, Madras, 1845; the Wesleyan Mission boarding school, Royapettah, Madras, 1849. (32) *Lord Elphinstone's educational scheme.*—In December 1839, Lord Elphinstone, who had succeeded to the Government shortly after the plans of the committee of native education were submitted, brought forward a scheme providing for the immediate establishment of one central collegiate institution, called in the scheme "University," at Madras, and eventually of a set of provincial colleges and schools in connexion with the central institution. The University thus contemplated was to be a teaching body. Lord Elphinstone dissented from the recommendations made by the committee for native education, and his scheme involved its dissolution. It was succeeded by a Board called the University Board. Mr. George Norton, the Advocate-General, a gentleman who had paid considerable attention to the question of native education, was appointed President of the new Board. Mr. Norton was strongly imbued with the necessity of restricting the Government schools in the first instance to the instruction of the higher orders of the native community, and of deferring the adoption of any direct measures for the education of the masses, until an educated class should have been formed among those who were possessed of means and leisure to prosecute their studies beyond the mere rudiments of literature and science. In the words of the address made by the new Board to Lord Elphinstone on the occasion of the opening of the high school, which was penned by Mr. Norton, he and his colleagues were "conscious that their first efforts must be partial and their success very gradual so long as a general ignorance darkens the face of the land. In the joint feeling and co-operation of the higher orders of the native community they looked for the most effectual if not the only support; to their intelligence as testified in their last address they made their constant appeal. The light must touch the mountain tops before it could pierce to the levels and depths." Lord Elphinstone held similar views, but at the same time expressed a concurrence in the opinion of the Governor-General that the elementary education of the mass of the people was not necessarily to be neglected or postponed to an indefinite period. The immediate measure proposed by him for the improvement of education in the interior was the formation at some of the principal towns of superior schools, which might be eventually raised into colleges and become eventually the centre of a circle of Zillah schools, as in turn "the Madras University" would be the centre of these Provincial colleges and of the whole system of education throughout the Presidency. The Provincial and Zillah schools were to be connected with the "Madras University" by the establishment of fellowships in the latter institution, to be competed for by the most advanced students of the Provincial schools, and by the foundation of scholarships in the provincial school for the most promising pupils of the Zillah seminaries. In the Provincial schools the English language was to be the medium of instruction, and an acquaintance with it an indispensable qualification for admission, subject to such relaxation at the outset as might be requisite. In regard to the part to be assigned to the vernacular languages in the course of instruction in the several seminaries Lord Elphinstone's intentions were not very clearly expressed. He observed that "the importance of the vernacular languages must not be overlooked. Although I am of opinion that in the Provincial colleges instruction should be given hereafter, solely through the medium of the English language, yet at the first establishment of these seminaries, it may not be possible to insist upon this condition." The want of precision in the views enunciated in this respect attracted the notice of the Court of Directors when the papers came before them, and they disapproved of that portion of the plan which provided for the eventual abandonment of vernacular instruction in the Provincial schools. "We entertain," they said "no doubt however of the desirableness of giving superior instruction in one or more of the native languages in use under the Madras Presidency at the Provincial schools concurrently with English, and we therefore direct that such instruction be adequately provided for in any plan for the establishment of the proposed seminaries." Lord Elphinstone's scheme for the establishment of a University, provided for its division into two departments; a high school "for the cultivation of English literature and the vernacular languages, and the elementary departments of philosophy and science," and a collegiate department for the "higher branches of literature, philosophy and science." Of these two departments, the first only could be established at the commencement; the then existing state of education at Madras being such as to preclude the expectation of any students being found qualified for entering upon the course of instruction for which the Collegiate department was designed. One of the first measures of the University Board was to procure the services of a competent person to organize the new institution, and the task of selection having been entrusted to Mr. Mounstuart Elphinstone, formerly Governor of Bombay, Mr. E. B. Powell was appointed to the headmastership of the high school, which was opened on the 14th April 1841. This institution is now known as the Presidency College. In the course of the preceding year, a preparatory school had been opened for preparing scholars for admission into the high school, the rules of the latter institution prescribing that an elementary knowledge of the English language should be an essential qualification for admission. (33) *The University Board.*—The University Board was not a successful institution, and a Council of Education was created to supplement it. This however was dissolved in 1847. The University Board was then re-organized, and "invested with the functions of a Board of General Education" to administer a total of one lakh of rupees. A half of this sum was assigned by the Board to the University (high school), Rupees 30,000 was set aside for five Provincial schools, and Rupees 20,000 was reserved for grants-in-aid. Two Provincial schools were then actually started, one at Cuddalore in 1853, and the other at Rajahmundry in 1854. (34) *Change of views as to educational policy.*—Towards the close of the period ending with the year 1854, doubts began to be entertained as to the soundness of the theory that all education should begin from above and thence descend to the masses. The education of the mass of the people through their own vernaculars, the adoption of a system of grants-in-aid, the avoidance of the establishment of Government schools in such localities as might bring them into opposition to, or rivalry with, other existing institutions; these measures were all advocated as early as 1851. There had also been discussions regarding translations from English works; and some small prizes had been given for their encouragement. However the extent of Government effort up to the close of this period was very inconsiderable. In 1826, as above seen, they had inaugurated 61 schools in the districts, but these they had shortly afterwards closed. The central institution opened at the same

vincial, but in which the fees if any are credited to the local body and not to Government. (c) Public institutions under private management receiving from Government or local Boards (i) salary grants, (ii) results grants, (iii) lump grants,

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time for training teachers for the district schools supplied eventually the basis of the Madras High School, the present Presidency College; and this was the most successful of the early operations of Government. The two high schools at Cuddalore and Rajahmundry opened in 1853 and 1854, have since held their ground. There had been brought into existence some Government institutions of a special character, the chief of which were,—"*a.*" The Madras Medical School, established in 1835, and raised to a college in 1851. "*b.*" The School of Arts first started in 1850. "*c.*" The School of Ordnance Artificers in 1840, attached to the Gun Carriage Factory. "*d.*" A 'Survey School' established about 1800. Some small sums were expended in the districts of Chingleput, Nellore, North Arcot and Tanjore, and in the maintenance of a few elementary schools in the hill tracts of Ganjam. There was no Government agency however beyond this. Of native primary education, connected with Government, there was none. In indigenous education there had been neither improvement nor extension during the thirty years that had elapsed since Sir Thomas Munro's minute instituted enquiries regarding it. (35) *Directors' Despatch of* 1854.—This has been mentioned above in the sketch history of education for India generally. (36) *Establishment of Government Department.*—In March 1855, Mr. Alexander Arbuthnot, the Secretary of the University Board, was appointed Director of Public Instruction, and during the course of the year sanction was given for the appointment of four Inspectors of Schools, twenty Assistant Inspectors, afterwards styled Zillah Visitors and now known as Deputy Inspectors, and sixty Sub-Assistant Inspectors called Talook Visitors. The University of Lord Elphinstone was remodelled and received the name of the Presidency College. A Law Class was established as a branch of this institution, and provision was made for a Normal school, for training teachers, four Provincial and eight Zillah schools, a hundred Talook schools, a depôt for school books, education presses, and Rupees 12,000 for scholarships. To carry out these measures occupied several years, and some changes were made from time to time in the details of the plan originally sketched out. Thus the full number of talook schools was never established, and schools of a somewhat higher grade known as Anglo-Vernacular schools took the place of some of the talook schools. The Madras Normal school was supplemented by Normal schools of a more elementary type in the provinces. A special school for Mahomedans known as the Madrissa-i-Azam was remodelled in 1859. The Provincial school of Combaconam grew into a college and was formally recognized as such in 1867. The Madras Medical school established in 1835 was constituted a college in 1851 and transferred to the Educational Department in June 1855. The School of Ordnance Artificers, established privately in 1840, was in 1855 constituted a Government institution. At about the same time the School of Arts opened privately in 1850, and the School of Industry similarly established in 1851, became Government institutions and were amalgamated under the designation of the School of Industrial Arts. The Survey School originally attached to the Board of Revenue and afterwards to the Chief Engineer's office was constituted the Civil Engineering College in 1858. (37) *The New Madras University.*—The present University of Madras was incorporated by an Act dated 5th September 1857, "for the purpose of ascertaining by means of examinations, the persons who have obtained proficiency in different branches of literature, science and art, and of rewarding them by academical degrees as evidence of their respective attainments, and marks of honor proportioned thereunto." The first entrance examination was held in September 1857, and the first examination for the degree of B.A. in February 1858. In 1863-64, an examination called the First Examination in Arts was interposed between the Matriculation and B.A. examinations. The course for the B.A. degree extending over three years, candidates for the F.A. examination were allowed to go up one year after matriculating. But the interval between the Matriculation and F.A. examinations was afterwards extended to two years, so that those who matriculated in 1869 could go up for the F.A. examination only in 1871. (38) *Grants-in-aid to Private Schools.*—The first Government Grant-in-Aid rules, that is to say, rules for regulating State aid given to private schools, were published in 1855, simultaneously with the arrangements above mentioned for the establishment of a purely Government department. The rules were couched in very general terms, but embodied some important principles. They provided that the grants were to be for specific purposes, mostly for teachers' salaries, and that they were not to exceed in amount the sum contributed on the part of the school itself, that is to say, from fees, endowments, &c. Except in the case of normal and female schools they were to be confined to schools in which school-fees were levied. Every aided school was to be under Government inspection, and no teacher was to receive a grant until his qualifications had been reported on by a Government Inspector. Experience showed that more definite rules were needed, and in 1858 a new code appeared. It was to a large extent an adaptation of the old English Code. Its main feature was an elaborate system of teachers' certificates in connection with the salary grants. Nine standards of qualification were laid down for schoolmasters and five for schoolmistresses, and for each standard there was a departmental examination. To each class of certificate a specific grant was attached, which represented one-third of the teacher's salary. These rules were superseded by a third code which came out in 1865, which has recently been superseded by the code of 1885. In the code of 1865 the number of grades for schoolmasters was reduced to five, and for schoolmistresses to three. The maximum grants claimable under these rules were made much higher than they had been before, representing one-half instead of one-third of the salaries of teachers. The University B.A., F.A., and Matriculation examinations were substituted for the departmental examinations for the three higher grades, the departmental examination in these grades being confined to a paper in method and teaching a class in the presence of an Inspector. Grants again were made claimable under the code for various purposes besides salaries, such as the erection and repair of buildings and the purchase of furniture, school apparatus, and books. Grants could also be claimed as an alternative in elementary schools on the payment for results system, but the standards for native schools were pitched so high that this portion of the code remained at first inoperative. A new set of results rules came out in 1868, another set again on 1st April 1878. The radical changes were introduced in 1884 in connection with Eurasian education. The present code came into force on the 1st July 1885. The Madras result rules are with many important differences based on what is known as the Mendella code, but many of the distinctive characteristics of the code have been retained in a modified form. They seem well adapted to the educational requirements of this Presidency. Large numbers of indigenous as well as mission schools in every district have been improved on the results system either in its simple or its modified form of a combination of salary and results grants and it has almost entirely superseded the salary grant system in elementary schools of all classes. Schools aided on the results grant system generally receive no aid except a result grant once a year. A still further modification of the original grant-in-aid system has of late been allowed to grow up in the form of what is known as the "combined" system, consisting of part fixed salaries and part results grants under the rules. This was originally applied to the Local Fund middle schools of Malabar. According to this plan which has now been incorporated in the code a proportion of each teacher's fixed salary was taken and made to depend on the result of the annual examination of the school. His regular salary was reduced, but if he exerted himself, he might eventually get something more than he would have otherwise drawn. In May 1873 this scheme in a somewhat different form was applied to the Local Fund primary schools of the same district. The indigenous teachers were in this case to be trained men, and to receive a monthly stipend of Rupees 4 with full results grants in addition to such school-fees as they could collect. In July 1874 a somewhat similar scheme was sanctioned for the middle and primary schools of South Canara, but under this arrangement the indigenous schoolmasters were to receive Rupees 6 instead of Rupees 4 a month. Various other schemes on the combined system, differing not only in their details, but in their fundamental principles, have been since sanctioned or proposed for different parts of the Presidency. In some districts full results grants are given in addition to salaries of varying amounts; in others only half results grants are given; in some the amount drawn as salary is deducted from the result grant, and is thus a mere advance to be eventually refunded. In some districts the fees belong to the teachers, in others to the Local Fund Boards. In some districts buildings and furniture are provided by the Boards, in others by the teachers. In some districts schools on the combined system are regarded as Local Fund schools, in others as private schools. In the new code the system is fixed by requiring

or (iv) aid on the combined system, supplemented in most cases by fees from parents, and in some cases by private subscriptions and endowments; these are called "aided schools." (*d*) Public institutions under private management which although under inspection do not receive aid from public funds.

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schools to be aided thereunder to comply in most respects with the conditions laid down for the issue of salary grants in regard to the fixed portion of the teacher's stipend. The three main systems of aid are then the salary grant system, the results grant system, and the combined system. The pure results grant system is considered to be chiefly adapted for the promotion of education in backward parts of the country and among the ruder classes, where the advantages of a less mercenary and purer method of State aid would meet with no appreciation. The salary grant system is regarded as the most suitable where public opinion is active and where confidence placed in teachers will meet with response. The combined system occupies in principle a ground intermediate between the other two, and may probably be relied upon for all intermediate sets of circumstances. It is especially adapted to schools for the poor. The description of the different forms of State aid given to private schools will not be complete without mentioning that in a few cases lump grants and special grants are given by Government; these, however, are quite exceptional. In speaking of State aid in this paragraph it must be understood that the term includes the aid given by various Municipal and Local Fund Circle Boards, which are in fact quasi-Government institutions. The grant-in-aid rules were originally drawn up to regulate aid given by the Government itself, but the Boards just mentioned have been required to adopt the Government rules. (39) *Madras Act VI of 1863.*—After the grant-in-aid system of 1855 had been in force for some years, it became apparent that however useful it might be in improving higher and middle class schools, it had been doing up to that date very little for elementary education in consequence of the limited number of applications made from elementary schools. In 1863 the Madras Education Act was passed. The object of this measure, which was based on the Municipal Act XXVI of 1850, was to provide a proper machinery for the collection and management of a rate, by which certain village schools in the subdivision of the Godavery district were supported, and to furnish the inhabitants of towns and villages in other parts of the Presidency with the means of raising permanent funds for the establishment of new and the improvement of existing schools and of availing themselves of the grants-in-aid which Government were prepared to give. The Act provided that if the majority of the rate-payers in the Godavery district did not petition against the continuance of the schools within two months from a given date, the schools should be continued for five years, and that a similar procedure should be observed at the end of every recurring period of five years. In any district the inhabitants might petition for an order declaring the Act in force in any town or village, and the order was to be issued if, after enquiry, a sufficient majority of the inhabitants was found in favour of the application. When however the Act came to be worked, it was found to be ill-adapted to rural communities. The Godavery Commissioners were inexperienced ryots, who knew little or nothing about the management of schools. The collections fell in arrears and the teachers remained unpaid for long periods. In the other districts very few schools were established, and in many cases after the Act had been put in force with the apparent assent of the inhabitants, it was found necessary to close the schools or to abandon the attempt to establish them. At the end of seven years the Act had been brought into operation in only nine out of nineteen districts, and the total number of rate schools was only 104. In the Godavery district the number had dwindled down to fifty-nine, in the other districts it ranged from two to seventeen. Among these were two important schools of the higher class at Palghaut and Sydapett. Except in the Godavery district, the other schools were almost entirely middle-class schools. Thus the experiment of extending an interest in education by means of a voluntary rate met with little general success. (40) *Madras Acts of 1871.*—The only alternative was a compulsory cess. So far back as April 1859 the attention of the Government of India and of the several local Governments had been drawn by the Secretary of State, to the expediency of imposing a compulsory rate to defray the expenses of schools for the rural population. The measure was not at that time approved by this Government at Madras. In May 1868 the Government of India pointed out that Act VI of 1863 had entirely failed in the main object for which it was passed, and suggested for consideration the introduction of a cess on the model of the one which had proved so successful in Northern and Western India. The necessity for supplementing Imperial revenues by local taxation had long been felt in this Presidency, and various local Acts were already in operation under which the conservancy of the principal towns and the formation and maintenance of district roads had been provided for by local taxes. The embarrassed condition of the finances of India, which became known in the following year, although it was not, as was popularly supposed, the immediate cause of the enactment of the Towns Improvement Act III of 1871, the Local Fund Act IV of 1871, and the Madras Municipal Act V of 1871, rendered it impossible to defer this class of legislation any longer, and those Acts were accordingly passed, providing among other things for the promotion of education in towns and country. The provisions of the Acts with their recent successors and the nature of the taxation levied under them are fully described elsewhere in this volume. The description of education to which Local and Municipal Funds were applicable was purposely left undefined in the Acts. Government have, however, since decided that these funds shall be mainly appropriated to the maintenance and improvement of "elementary" education. The exceptions which have been allowed are the rate schools of the middle class established under the Madras Education Act, institutions for medical and technical training, and certain schools which have been dealt with as exceptional cases. It was originally intended that one-fourth of the cost of all Government Normal schools should be debited to Local and Municipal Funds, but it was found that some of these schools supplied few or no teachers to elementary schools, and it was considered inequitable to throw any portion of their cost on Local or Municipal Funds. This part of the scheme was therefore carried out only with reference to a few Normal schools, and circumstances occurred which rendered it of very short duration even in this limited form. In the years 1871-72 and 1872-73 three hundred and twenty-three Local Fund schools had come into existence, and the house-tax under the Local Funds Act had been imposed in a corresponding number of villages or groups of villages. But the imposition of this tax encountered in several instances such extreme hostility, that Government determined that it should proceed no further. As the effect of this order was to leave charges for sanctioned "Union" schools unprovided for to an aggregate amount of Rupees 1,10,000, a special grant was made from Provincial Funds to the circles concerned to supply such deficiency as could not be met from the unallotted balance of the General Fund of each circle. Since 1873-74 Local Fund Circle education has been developed without the aid of a house-tax. It was calculated at the end of 1873-74 that, including the one-third land-cess, the General Local Fund might be estimated at about 14¼ lakhs, of which 5¾ lakhs were allotted as an additional contribution to the Road Fund, and three-quarters of a lakh were given as a contribution towards the pay of the Deputy Inspectors and the cost of Normal schools. From the commencement of 1874-75 it was resolved that no contributions should be made from the one-third land-cess to the Road Fund until the requirements of the other purposes to which the General Local Fund might by law be applicable had been fully met and that all charges on account of Deputy Inspectors and Normal schools should be resumed 'in toto' as a provincial charge. The general effect of these measures was to place about eight lakhs and a half at the disposal of the Local Fund Boards for elementary education. In December 1874 the Local Fund Boards and Municipalities were further relieved at option of all charges connected with female education, and a few girls' schools which had been maintained or aided by them were constituted Government institutions. (41) *Changes in the nomenclature of schools.*—In January 1879 the Government of India prescribed new forms of statistics to be adopted in the Public Instruction Reports and in pursuance of the instructions therein contained the Zillah, Talook and Anglo-Vernacular schools have been called colleges, high schools and middle schools. (42) *Recent Progress.*—During the last few years the progress of education has been satisfactory, whether in State schools, in Local Board schools, or in schools under private management aided by the State and Local Boards. Colleges and high schools have been increasing in numbers and efficiency. The Rajahmundry College, the Madras Christian College, and St. Joseph's College, Negapatam, are now first-grade colleges educating up to B.A. degree. The number of second-grade colleges, educating up to the F.A. standard, is

761. The Government institutions entered in the last paragraph as class (*a*) comprise institutions of every educational standard. In the first place come three first-grade colleges at the Presidency town, Combaconam, and Rajahmundry; and seven second-grade colleges at Bellary, Berhampore, Calicut, Cuddalore, Madura, Mangalore, and Salem. There are eight high schools appertaining to these colleges. In the current year the colleges at Bellary and Salem will be transferred to the Municipalities concerned. There are also first-grade high schools at Chittore, Cuddapah, Kurnool, and Sydapett, and second-grade high schools at Cannanore, Chicacole, and Goontoor. All the high schools above-mentioned have middle schools, more or less complete, attached to them. Excepting the high school constituting a part of the practising branch of the Government Female Normal School, Madras, there is no Government girls' school of the high school standard. The Government middle schools for boys have been transferred either to the Municipalities or the District Boards concerned, with the exception only of Goonapore and Bhadrachellam schools. There are thirteen Government middle girls' schools; at Chidambaram, Combaconam, Cuddalore, Carootattangoody, Moolapett, Naidoopett, Nellore, Ossoor, Ongole, Poodoocottah, Salem, Vellore and Vriddhachellam. There are twenty-two primary schools for girls maintained by Government, besides the primary departments attached to superior schools. There are five Government Normal schools for masters; namely those at Madras, Narsapore, Russellcondah and Tellicherry with the Mahomedan Normal school at Madras. The Madras General Normal school trains teachers of the first, second and third grades, while the other normal schools are elementary in their character and train fifth-grade teachers. Special normal classes are also attached to the Bhadrachellam and Goonapore middle schools. There are two normal schools for mistresses, one at Madras and the other at Coimbatore, and there is besides an experimental normal class in connection with the Government Girls' School, Chicacole. A few schools or departments of schools have been specially established for the Mahomedan community. Of these the most important is the Madrissa-i-Auzam, a second-grade high school at the Presidency town. The Mahomedan Anglo-Vernacular School at Mylapore has recently been reduced to the primary standard. Elementary schools for Mahomedans were opened a few years ago at Adony, Arcot, Cuddapah, Ellore, Kurnool, Masulipatam, Nagore, Rajahmundry, Trichinopoly, and Vellore; and several of these have already developed into ordinary middle schools. The Arcot Mahomedan school has since been closed on the re-organization of a Yeomiah school under the control of the District Board; while the remaining schools have been handed over to the Municipalities concerned, except those at Cuddapah and Kurnool which are about to be handed over. At Cuddapah and Kurnool it has been found expedient to amalgamate the Mahomedan school with the other Government school, of which it now forms a department, and at Chittore a Mahomedan department has been recently added to the Government school. In all these

annually increasing, and there are now only seven districts unprovided with a college. The rates of school-fees have been four times raised, and many of the high schools are beginning to pay half and even a larger proportion of their cost by means of school-fees. Middle-class education has improved in the Government schools, but is on the whole in a less satisfactory state in aided schools. The high schools are stimulated and improved by the University examinations. The primary schools come under the influence of the examinations for results grants. Middle-class schools have suffered from the absence of a public test examination answering to their educational standard. This was accordingly instituted in 1879. Recent progress however has been most marked in the case of elementary education. The growing attendance at many Government schools in the mofussil has rendered it necessary in the past two or three years to abolish the primary departments in order to prevent undue crowding and to set the funds at disposal of Government to strengthen the teaching staff of the middle and high school departments. But Municipalities and Local Fund Boards have stepped in and assumed new responsibilities as the promoters of elementary education. The existence of these schools, tends to develop an interest in education among the native members of Commissions and Local Boards and is an unmixed advantage to the population concerned, who if the fees are low soon learn to send their children to well-conducted public schools instead of to small and inefficient verandah schools. Again there has been a great increase in aided institutions, the number being 4,625 in 1879-80 and 5,845 in 1880-81, against only 2,414 in 1870-71. The increase here mainly confined to small village and verandah or pyall schools, either of long standing or of recent origin, which have gradually been brought under the influence of the educational system. There has also been an increase in the number of unaided schools under inspection. In the ten years ending 1879-80, the number of pupils receiving elementary education in schools connected with the department increased from 90,605 to 247,471, the proportion of pupils to the population calculated per hundred being ·7914 against ·2894. In the year 1884-85, the number had risen to 395,374, and the proportion to population on the census of 1881 to 1·2808. The proportion of pupils in towns during this period has advanced rather more rapidly than in rural tracts, though the difference is not great. The steps recently taken for promoting female education are mentioned in the text. During the ten years 1875–1885 the number of girls receiving instruction in the Presidency rose from 19,582 to 50,919. The number of women presenting themselves for the Departmental Certificate examinations afford a rough guide to the progress of female education above the elementary grade, and the increase here has been very great. The general facts however relating to recent progress in education can be seen from the comparative statistics in the text.

Mahomedan schools instruction is imparted through the medium of Hindostany except at Nagore; where Tamul is the vernacular of the Lubbay boys, by whom the school is attended. There are twenty-seven Government primary schools in the hill tracts of Goomsoor and Pedda and Chinna Kimedy, one primary school in the hill tracts of Vizagapatam, and thirteen primary schools for boys in the Rekapully and Bhadrachellam talooks; all these for Ooriyahs, Khonds, and hill tribes.

762. In class (*b*) of the above classification or quasi-Government institutions, there are for boys three Local Fund and seven Municipal high schools and one hundred and ten Local Fund and nineteen Municipal middle schools. With three exceptions English is taught in each of these schools. Most of these correspond with the schools hitherto known as Anglo-Vernacular and talook schools, but a few are purely vernacular schools. According to the returns for 1884-85 there are 1,014 primary Local Fund schools and 80 primary Municipal schools. It is optional with the Local Fund Boards to allow English to be taught or not, but most of the schools are vernacular schools, and there are few in which the highest class rises above the third results standard. Girls are not excluded from these schools, and the number of such attendances is increasing. There are four Municipal and two Local Fund middle schools and eleven Municipal and twenty-seven Local Fund primary schools for girls. The Local Fund Boards maintain also with aid from Provincial Funds thirty-two normal schools for masters and one normal school for mistresses and three medical schools. The Madras Municipality has an elementary normal school of its own. Theoretically these schools are managed by the Local Fund Boards with the aid of the Inspector of the division; in practice the tendency of the system is to throw all administrative details into the hands of the Deputy Inspectors. A few of the Municipal schools are schools for special classes, such as Mahomedans, East Indians, silk-weavers, &c., but the majority of them are for all classes, and in large towns they act as feeders to the more advanced schools, and do some of the work which used to be formerly done in the primary departments of those schools. The attendance in some of these schools is tolerably large, ranging between one and two hundred, and a few of the best schools are beginning to realize a large income from school-fees. The number of Municipal schools is increasing, but some towns prefer to work entirely on the grant-in-aid system, especially that of results. In the town of Madras this is exclusively the case in regard to poor schools aided from Municipal funds. English is taught in many of the Municipal schools, which thus act as supplementary to more advanced schools. The Lawrence Asylum at Ootacamund is the only institution answering to the description of a quasi-Government institution worked by a committee and other than a local Board school.

763. With regard to class (c. i) of the classification salary-grants are given from Provincial Funds to 18 colleges, 61 high schools, and 31 middle schools for boys, and to 94 schools for girls; also to the primary schools which form departments of these colleges and schools except in the case of middle and primary departments of superior institutions for boys in Municipalities, these charges being borne by Municipal Funds. Salary-grants are rarely given to any other primary schools than those just mentioned, but if given they are paid from Local or Municipal Funds. With regard to class (c. ii) results grants earned by boys under the fourth, fifth, sixth and seventh standards and by girls under all the standards are paid from Provincial Funds and under the three lower standards from Local or Municipal Funds; except in the town of Madras where the results grants of poor schools under all four standards are paid by the Municipality, and the results grants of other schools fall entirely on Provincial Funds. With regard to class (c. iii) certain rate schools originally established under the Madras Education Act, and afterwards transferred to Local Fund Board and Municipalities, and certain middle schools which had been aided on the salary-grant system previous to their transfer to the Local Fund Boards, received till lately lump grants from Provincial Funds. Since the introduction of new grant-in-aid code however lump grants to individual schools have been discontinued; special lump grants only being given to certain Boards where the finances do not admit of adequately meeting the

educational demands. Lump grants are not regulated by the ordinary rules. With regard to class (c. iv) certain aided schools are worked by local Boards on this method. It is in fact more used by these bodies than in any other part of the educational system.

764. Institutions inspected but not aided number at present nearly as many as those in the last class, but they contain only about half the number of pupils.

765. The statistical abstract at foot [3] shows the progress in the number of schools and pupils on the books under each of the above four heads during a period of ten years. The next statement [4] shows the number of Government and quasi-Government institutions in 1874-75, 1879-80, and 1884-85 arranged by their educational standard which will be mentioned hereafter. In this table the school departments of colleges and practising departments of normal schools are counted separately, while the middle and primary departments of high schools and the primary departments of middle schools are not so counted. This mode of tabulation has been rendered necessary by the fact that the reports for certain years of the decade treated a school with all its departments as one school. The

[3] STATEMENT SHOWING PROGRESS FOR TEN YEARS OF THE SCHOOLS ARRANGED ACCORDING TO UPKEEP.

Distribution of schools and pupils according to upkeep.	1875-76.		1876-77.		1877-78.		1878-79.		1879-80.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Government	130	11,100	131	10,317	131	10,993	152	11,279	156	11,304
Local Fund and Municipal ...	754	26,808	980	33,009	804	26,903	875	29,688	1,221	39,765
Private aided	5,081	159,146	5,732	179,551	5,424	166,146	4,497	137,201	4,647	144,167
Inspected but not aided ...	4,271	87,426	3,278	65,701	2,784	51,767	3,392	59,670	4,152	73,143
Total ...	10,236	284,480	10,121	287,948	9,143	255,809	8,916	237,838	10,176	268,379

—	1880-81.		1881-82.		1882-83.		1883-84.		1884-85.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Government	157	11,668	160	12,141	159	11,936	158	10,297	142	8,598
Local Fund and Municipal ...	1,128	39,553	1,171	43,585	1,258	48,507	1,289	48,225	1,317	48,853
Private aided	5,867	178,609	7,484	223,293	9,186	266,084	9,133	275,510	9,173	274,489
Inspected but not aided ...	5,254	97,978	5,842	114,664	5,987	119,797	5,568	113,754	4,955	98,911
Total ...	12,406	327,808	14,657	393,683	16,590	446,324	16,139	447,786	15,587	430,851

[4] STATEMENT SHOWING PROGRESS FOR TEN YEARS OF GOVERNMENT AND QUASI-GOVERNMENT INSTITUTIONS ARRANGED BY EDUCATIONAL STANDARD.

Description.		1874-75.	1879-80.	1884-85.
For boys	Arts colleges	8	10	10
	High schools	14 Bd. 2	21 ...	16 Bd. 10
	Middle schools	70 Bd. 83	Govt. 58 Bd. 46	Govt. 3 Bd. 129
	Primary schools	29 Bd. 489	Govt. 31 Bd. 1,144	Govt. 56 Bd. 1,094
For girls	High schools	...	1	...
	Middle schools	1	1 Bd. 1	14 Bd. 7
	Primary schools	8 Bd. 1	13 Bd. 25	23 Bd. 38
Normal schools for masters		9 Bd. 1	11 Bd. 5	8 Bd. 33
Normal schools for mistresses		1	1	3 Bd. 1

next table [5] gives similarly the number of all classes of non-Government institutions, aided and unaided. It appears, from these tables, that there was considerable progress in the number of institutions of all kinds during the decade. The falling off in the number of middle schools, both for boys and girls, in 1879-80, is only apparent, as in and prior to 1874-75 the line of demarcation between middle and primary schools was not clearly drawn. With a clearer definition of the standards of instruction, it was necessary to class many so-called "middle" schools as primary schools. Madras is the only town in which a Government and an aided first-grade college exist side by side. In the Tanjore district the Government college is located at Combaconam, and the aided college at Tanjore. The total number of aided colleges exceeds the number of Government colleges by eight, and there are, besides, two unaided colleges, one at Vizianagram and the other at Calicut. The total number of aided and unaided high schools is 94 against 16 Government high schools. The aggregate number of aided and unaided English and Vernacular middle schools is 343 against 3 Government and 129 Board schools of the same class. The number of primary schools for boys, English and Vernacular, is 12,989 non-Government against 56 Government and 1,094 Board institutions. The next abstract statement [6] gives the total number of pupils actually attending school in Government and private institutions on the 31st March 1875, 1880, and 1885. The next statement [7] shows the annual amount of general grants-in-aid from Provincial funds including building grants during the same period. These grants, it may be mentioned, are for high, middle and female education hereafter to be explained and include the result grants hereafter to be explained paid from Provincial funds for all the results grants standards above the third, which is the superior limit of lower primary or elementary instruction. The grants given

[5] STATEMENT SHOWING PROGRESS SIMILARLY FOR NON-GOVERNMENT INSTITUTIONS AIDED AND UNAIDED.

Description of institution.		1874-75.	1879-80.	1884-85.
For boys	Colleges	6	14	20
	High schools	34	56	94
	Middle schools	348	83	343
	Primary schools	7,785	8,229	12,989
For girls	High schools	1	7	26
	Middle schools	47	13	118
	Primary schools	212	390	519
Normal schools		5	5	15
	Total ...	8,438	8,797	14,124

[6] ABSTRACT STATEMENT SHOWING ATTENDANCE OF SCHOLARS FOR TEN YEARS.

Year.	Boys' schools.		Girls' schools.		Total.
	Government and Board.	Private.	Government.	Private.	
1875	29,481	213,604	486	12,166	255,737
1880	49,473	199,221	1,596	18,089	268,379
1885	53,134	345,413	4,256	28,048	430,851

[7] STATEMENT SHOWING GRANTS-IN-AID FROM GOVERNMENT PROVINCIAL FUNDS FOR TEN YEARS.

Year.	Salary and other grants.	From Educational Building fund.	Total.
	RS.	RS.	RS.
1875-76	2,66,817	13,694	2,80,511
1876-77	3,08,001	2,919	3,10,920
1877-78	3,13,781	28,922	3,42,703
1878-79	2,92,064	20,186	3,12,250
1879-80	2,73,759	...	2,73,759
1880-81	2,41,466	1,870	2,43,336
1881-82	2,60,934	9,478	2,70,412
1882-83	3,33,165	6,733	3,39,898
1883-84	3,47,913	667	3,48,580
1884-85	4,10,440	...	4,10,440

from Local and Municipal funds are given below.[8] But these are only approximate. They have been taken from reports of the department which do not in many cases profess to give the entire financial statistics of Local Fund Boards ; and they are thus rather below than above the mark. These grants are mainly for elementary education. The gross expenditure on education for ten years is summarized below.[9]

766. DESCRIPTION OF EDUCATIONAL INSTITUTIONS ACCORDING TO TEACHING.—The classification of educational institutions given in the remarks of the last four paragraphs has been a financial one, made with reference to the sources from which those institutions are supported. With reference to the nature of the instruction given, the Government institutions range themselves, according to the teaching standard and the classes they contain, in the order shown in the table below.[10] The three general heads of University, Secondary, and Primary education explain themselves. The meaning of the table as to classes is that those shown under each head are not to be found in any head lower in the scale; and that a student proceeding through the whole educational course (say during thirteen years, one for each class), would have to pass through all the classes and institutions there specified. No single institution has all the classes here enumerated. On the other hand it is not unusual for an institution to be divided into branches representing different parts of the scheme, all being in the same building and under the same management; thus every college has a school attached to it, and most high or middle schools have one or more primary classes working under the same roof. The meaning of the classes themselves is primarily that in each class such and such a curriculum of study is pursued. Of late there has been an increasing tendency to separate off the classes by actual test-examinations prescribed and conducted by

[8] STATEMENT SHOWING LOCAL AND MUNICIPAL GRANTS FOR TEN YEARS.

Year.	Grants from Local funds.	Grants from Municipal funds.	Total.
	RS.	RS.	RS.
1875-76	1,72,120	36,776	2,08,896
1876-77	2,06,009	38,911	2,44,920
1877-78	1,87,637	40,040	2,27,677
1878-79	1,06,531	25,873	1,32,404
1879-80	1,00,975	27,283	1,28,258
1880-81	1,61,176	36,165	1,97,341
1881-82	2,53,819	43,768	2,97,587
1882-83	3,01,099	59,115	3,60,214
1883-84	2,81,967	74,926	3,56,893
1884-85	2,76,901	1,01,669	3,78,570

[9] STATEMENT SHOWING GROSS EXPENDITURE FROM ALL SOURCES ON EDUCATION FOR TEN YEARS.

—	1874-75.	1879-80.	1884-85.
	RS.	RS.	RS.
Government and Board institutions	5,99,980	9,08,715	11,90,303
Private institutions	15,76,669	14,31,564	23,63,373
Direction, inspections, &c.	2,89,262	4,83,194	6,70,354
Total ...	24,65,911	28,23,473	42,24,030

[10] INSTITUTIONS ARRANGED ACCORDING TO THE INSTRUCTION GIVEN AND THE CLASSES CONTAINED.

(a) UNIVERSITY EDUCATION.

Arts Colleges, First Grade.

10th or B.A. Class.
9th or Preparatory B.A. Class.

Arts Colleges, Second Grade.

8th or F.A. Class.
7th or Preparatory F.A. Class.

(b) SECONDARY EDUCATION.

High Schools (Upper Secondary).

6th or Matriculation Class.
5th or Preparatory Matriculation Class.

Middle Schools (Lower Secondary).

Upper Fourth Class.
Lower Fourth Class.
Third Class.

(c) PRIMARY EDUCATION.

Upper Primary Schools.

Second Class.

Lower Primary Schools.

First Class.
Preparatory Class B.
Do. do. A.
Infant Class.

central authority, and where this is the case a student cannot enter any class or pass to it from one lower without first having passed the corresponding examination. This rule is enforced in all institutions under the direct management of the department and exemptions can only be sanctioned by the Director of Public Instruction. The above remarks are in the main applicable to private schools of the same educational standard receiving aid in the form of salary-grants from public bodies. The adoption of departmental restrictions however in regard to class promotion is voluntary in aided institutions. Private elementary schools receiving pecuniary assistance from Municipalities and Local Boards on the results system are technically classed as upper primary or lower primary according as they pass boys under the fourth standard results examination or only under the three lower standards. The following remarks give further detailed information as to these teaching classes, curricula, and test-examinations.

767. The highest or tenth class of the scheme in foot-note [10] takes its name from the B.A. examination and degree of the Madras University, for which it prepares students. The B.A. test is shown in Vol. II, App. XCVI; and the curriculum consists in preparation for that test. Under the rules of the University a student must have passed the F.A. University examination, or First Examination in Arts, before appearing for the B.A. examination; but there is no special departmental test to regulate promotion to the tenth class from the ninth class next below it, that being regulated within the institution concerned. The ninth or Preparatory B.A. class prepares pupils for the B.A. test and finishes a part of the B.A. curriculum. A student does not enter it unless he has passed the F.A. University examination. The eighth or F.A. class takes its name from the F.A. examination of the Madras University for which it prepares students. The F.A. test is shown in Vol. II, App. XCVI, and the curriculum consists in preparation for that test. There is no special departmental test to regulate promotion to the eighth class from the seventh class next below it, that being regulated within the institution itself. The seventh or Preparatory F.A. class prepares pupils for the F.A. test by finishing a part of the F.A. curriculum prescribed for the year. To enter an arts college at all a student must first have passed the University Matriculation examination; this rule being absolute. English is exclusively used as the vehicle of instruction in collegiate classes. The course in the seventh and eighth classes occupies properly two years, and that in the ninth and tenth classes two years more. The age for entering an arts college is usually from sixteen to eighteen years. The remarks above made for Government colleges apply in the main to all colleges. The statement at foot [11] shows

[11] TABLE OF COLLEGES IN THE PRESIDENCY, WITH THEIR SCHOLARS, FOR THE YEAR 1884-85.

Arts colleges.	Number of institutions.	1884-85.							
		Number of scholars on rolls on 31st March			Classification according to race or creed.				
		Reading for B.A.	Reading for F.A.	Total.	Europeans and Eurasians.	Native Christians.	Hindoos.	Mahomedans.	Others.
GOVERNMENT.									
First grade	3	267	340	607	4	11	577	13	2
Second do.	7	...	288	288	2	6	270	7	3
Total ...	10	267	628	895	6	17	847	20	5
AIDED.									
First grade	4	295	657	952	4	82	843	22	1
Second do.	14	...	536	536	23	67	437	7	2
Total ...	18	295	1,193	1,488	27	149	1,280	29	3
UNAIDED.									
First grade	1	7	42	49	...	...	49	...	...
Second do.	1	...	83	83	...	...	76	...	7
Total ...	2	7	125	132	...	...	125	...	7
Grand Total ...	30	569	1,946	2,515	33	166	2,252	49	15

for the latest year the number of colleges in the Presidency, with the number of students on their rolls, and the classification of the students according to race or creed. The next statement [12] shows the occupation of the parents or guardians of college students. The next statement [13] shows the success in the B.A. and F.A. examinations for the latest year of each of the first-grade and second-grade

[12] TABLE SHOWING OCCUPATION OF PARENTS OF COLLEGIATE SCHOLARS FOR 1884-85.

Colleges.	Pupils whose parents or guardians are					
	Officials.	Traders.	Farmers or land-owners.	Artisans.	Others.	Total.
Government	379	36	410	5	65	895
Aided	604	151	587	6	140	1,488
Unaided	57	10	65	...	...	132
Total ...	1,040	197	1,062	11	205	2,515

[13] LIST OF COLLEGES, SHOWING THE SUCCESS ATTAINED BY THEM IN THE B.A. AND F.A. EXAMINATIONS, FOR 1884-85.

Colleges.	1884-85.				
	Attendance.	B.A. examination.		F.A. examination.	
		Examined.	Passed.	Examined.	Passed.
GOVERNMENT.					
Presidency College	295	81	41	64	22
Combaconam do.	209	33	22	77	34
Rajahmundry do.	103	9	5	35	11
Berhampore do.	23	...	...	10	1
Bellary do.	24	...	...	9	5
Cuddalore do.	28	...	...	14	6
Salem do.	24	...	...	8	3
Madura do.	73	...	...	26	8
Calicut do.	68	...	...	37	17
Mangalore do.	48	...	...	22	11
Total ...	895	123	68	302	118
AIDED.					
Madras Christian College	537	117	58	136	51
St. Joseph's College, Trichinopoly	199	26	8	49	22
Tanjore St. Peter's College	106	13	5	35	11
Doveton Protestant do.	19	2	2	13	4
Vizagapatam Hindoo do.	24	...	...	7	2
Masulipatam Noble do.	31	...	...	22	4
Madras Patcheappah's do.	127	...	...	36	6
Trichinopoly S.P.G. do.	110	...	...	45	15
Tinnevelly C.M.S. do.	25	13	7	14	5
Do. Hindoo do.	54	...	...	23	12
Coimbatore do.	85	...	...	29	11
Cocanada Pittapore Rajah's College	23	...	...	...	...
Madras St. Mary's College	6	...	...	6	...
Cuddalore St. Joseph's College	18	...	...	...	...
Negapatam Wesleyan Mission College	49	...	...	13	7
Tranquebar Lutheran Mission College	6	...	...	6	4
Tuticorin Caldwell College	29	...	...	11	7
Mangalore St. Aloysius' College	40	...	...	4	3
Total ...	1,488	171	80	449	164
UNAIDED.					
Vizianagram Maharajah's College	49	3	1	24	6
Calicut Kerala Vidyasala	83	...	...	20	7
Total ...	132	3	1	44	13
Grand Total ...	2,515	297	149	795	295

colleges individually in the Presidency. The next statement [14] shows the cost of educating each scholar in the different colleges as ascertained for the latest year. The next statement [15] shows the present position of the Bachelors of Arts of the University of Madras, as far as can be ascertained. A large number of graduates enter the legal profession. 126 graduates became legal practitioners

[14] TABLE SHOWING THE COST OF EDUCATING EACH SCHOLAR IN THE ABOVE COLLEGES, FOR 1884-85.

Colleges.	Average number on the rolls monthly during the year.	Average daily attendance.	Annual cost of educating each scholar.	
			Total cost.	Cost to Government.
GOVERNMENT.				
First grade.			RS. A. P.	RS. A. P.
Presidency	276	238	258 14 9	193 7 4
Combaconam	214	194	170 9 5	106 2 0
Rajahmundry	75	70	321 13 3	263 13 0
Second grade.				
Berhampore	16	14	315 13 0	260 3 0
Bellary	17	15	343 9 5	281 4 8
Cuddalore	25	21	191 11 6	138 6 4
Salem	16	15	269 4 0	215 6 0
Madura	62	57	100 12 8	42 10 4
Calicut	54	42	207 15 8	140 7 4
Mangalore	39	36	172 15 2	88 11 0
Total ...	794	702	...	...
AIDED.				
First grade.				
Madras Christian	464	427	93 10 4	27 6 8
Tanjore S.P.G.	85	75	96 6 5	33 11 4
Trichinopoly St. Joseph's	177	168	252 3 8	20 4 6
Do. S.P.G.	99	77	111 1 0	40 10 4
Second grade.				
Vizagapatam Hindoo	16	14	241 9 0	79 9 0
Masulipatam Noble	27	23	249 5 4	36 6 6
Patcheappah's	82	73	105 7 9	1 10 6
Tuticorin Caldwell	30	26	221 10 2	46 10 8
Tinnevelly C.M.S.	21	20	140 0 9	41 4 7
Do. Hindoo	35	32	102 2 9	30 13 9
Coimbatore	64	58	91 12 3	34 5 0
Cocanada Pittapore Rajah's ...	19	18	85 7 7	29 1 8
Doveton Protestant	18	17	644 15 1	177 3 6
St. Mary's	7	6	232 13 9	175 4 7
Cuddalore St. Joseph's	11	10	164 0 0	19 7 3
Negapatam Wesleyan Mission ...	30	26	146 15 6	42 3 9
Tranquebar Lutheran Mission ...	6	5	266 0 0	31 5 4
Mangalore St. Aloysius'	44	39	212 15 3	45 6 10
Total ...	1,235	1,114	...	...
UNAIDED.				
First grade.				
Vizianagram Maharajah's	48	43	246 14 0	...
Second grade.				
Calicut Kerala Vidyasala	48	36	134 0 4	...
Total ...	96	79	...	...
Total English colleges ...	2,125	1,895	...	...

[15] TABLE SHOWING PRESENT POSITION OF THOSE WHO HAVE GRADUATED AT THE MADRAS UNIVERSITY, CORRECTED TO 1882.

Bachelors of Arts up to 31st March 1882.	In Government service.							Teachers in aided and private schools.	Vakeels.	Merchants.	Mirassidars.	In service of Native States.	Of independent means.	Pensioners.	Students at professional colleges.	Total.	Occupation unknown.
	Judicial.	Revenue.	Educational.	Engineering.	Indian Medical Service.	Clerical.	Clerks, under Rs. 100 per mensem.										
971	118	36	90	4	3	1	96	118	92	4	4	68	55	4	103	796	175

between 1872 and 1881, 49 in mofussil courts and 77 in the Madras High Court. Of these, several have become District Moonsifs, and one is a Judge in Travancore.

768. The sixth or Matriculation class of Government schools takes its name from the Matriculation examination of the Madras University, for which it prepares students. The University test is shown in Vol. II, App. XCVI, and the curriculum runs parallel. The examination is held at the following stations:—Bangalore, Batticaloa, Bellary, Berhampore, Calicut, Chicacole, Coimbatore, Combaconam, Cuddalore, Cuddapah, Ernacolum, Hassan, Hyderabad, Jaffna, Kurnool, Madras, Madura, Mangalore, Masulipatam, Munnargoody, Mysore, Negapatam, Nellore, Ootacamund, Palamcottah, Rajahmundry, Salem, Shimoga, Tanjore, Tellicherry, Trichinopoly, Trincomalee, Trivandrum, Tuticorin, Vellore, and Vizagapatam. The fifth class has a curriculum as shown in the same appendix. It is tested by a quasi-public examination called the Fifth Class Departmental Comparative examination. This test is conducted by the Director of Public Instruction with the assistance of Inspectors of Schools and masters in second-grade colleges and high schools and the examination is held in the local high schools. Ordinarily a head master of a Government school is not permitted to promote a boy into the sixth class until he has passed this examination. In the high schools all scholars read English as a subject; and about one boy in five a classical native language similarly. Instruction in the high school classes is almost wholly imparted through the medium of English. There is no high school in the Presidency, in which instruction is given entirely through the medium of the vernaculars. The period during which a student should properly remain in the fifth and sixth classes forming the high school branch of secondary education is two years, but the majority of students take three years after passing the Middle School examination to pass the Matriculation examination.

769. The upper fourth, lower fourth, and third classes of Government schools, forming the middle school branch of secondary education, have similarly the three curricula shown in Vol. II, App. XCVI. The upper fourth is tested and promotion from it is regulated by the public Middle School examination. The Middle School examination of the educational system has since 1879 been utilized by the Government for testing the eligibility of candidates for the public service; non-students being admitted to it. For this see para. 756. It has also taken the place of the former fourth-grade certificate examination for masters and second-grade examination for mistresses. With this three-fold application, without reckoning examinees from aided schools hereafter to be mentioned, the number attending the examination is very great. In 1884, 8,358 candidates altogether were examined, and 4,895 altogether were passed. About half the examinees in this examination are Brahmins. The test appears in the Fort St. George Gazette of 24th February 1885. The examination is conducted by the Commissioner for the U.C.S. Examinations who is assisted by a Secretary and is held at the following stations:—Alleppey, Anantapore, Bangalore, Bellary, Berhampore, Bezwada, Bhadrachellam, Bimlipatam, Calicut, Cannanore, Chicacole, Chidambaram, Chingleput, Chittore, Cocanada, Cochin (Ernacolum), Coimbatore, Combaconam, Conjeeveram, Cottayam, Cuddalore, Cuddapah, Dindigul, Ellore, Erode, Goontoor, Hassan, Hyderabad, Kurnool, Lovedale, Madanapully, Madras, Madura, Mangalore, Masulipatam, Mayavaram, Munnargoody, Mercara, Mysore, Nagarcoil, Namcull, Narsapore, Nazareth, Negapatam, Nellore, Ongole, Oodamalpett, Oossoor, Ootacamund, Palamcottah, Palghaut, Poodoocottah, Rajahmundry, Ramnaud, Salem, Sawyerpooram, Shimoga, Shivagunga, Shreevillipoottore, Sydapett, Tanjore, Tellicherry, Tinnevelly, Tranquebar, Trichinopoly, Tripatty, Trivandrum, Trivellore, Tuticorin, Veeraraghavapooram, Vellore, Vizagapatam, and Vizianagram. The lower fourth is tested and promotion from it is regulated in Government schools by the Lower Fourth Departmental Comparative examination, which is conducted by the Inspectors of Schools and is held in the local schools themselves. For the third class there is no test examination, other than that of the Inspector's visits. In middle schools almost all scholars take up English as a subject, and about one in eight a classical native language similarly. In some schools the classes here specified are styled vernacular as teaching through the medium of the vernaculars

(Tamul, Teloogoo, Canarese, Malayalam, Ooriyah, Hindostany); and in some they are styled English as teaching through the medium of English. There are 108 middle schools in the Presidency, 29 for boys and 79 for girls to which the term vernacular may in this sense be applied. The average period during which a student stays in these three classes is about three years.

770. The classes and curricula in such schools aided by Government and Boards on the salary-grant system as fall under the designation of high and middle schools by virtue of their educational standard, are very much the same as has been stated in the last two paragraphs for Government schools. Similarly also in a less degree in the case of unaided schools of the same class. As regards the test-examinations, salary-grant aided schools of the first grade must enter for the Matriculation examination, which tests the work of the sixth class, and passes students into the arts colleges. The obligation can be enforced by suspension or withdrawal of grants. The Fifth Class Departmental Comparative examination is optional with such schools; but since 1881 they have entered candidates for it. In 1884 nineteen salary-grant schools voluntarily joined this examination. The Middle School testing examination is obligatory on salary-grant aided schools in the same way as the Matriculation examination. The Departmental Lower Fourth Comparative examination was employed by 83 salary and results schools in 1884. The classes and curricula in schools aided on the results or combined salary and results systems are not necessarily arranged in the same way. These classes and curricula are known technically by the name of the corresponding results examination under the Grant-in-aid Code for which the classes prepare. They do not range above the middle school standard; and their classes are respectively seventh results class answering to the upper fourth class, sixth results class answering to the lower fourth class, and fifth results class answering to the third class. The details of the Grant-in-aid Code will hereafter be explained. The unaided schools other than those preparing for admission to examinations under the results system are gradually adopting the curricula prescribed in Government or salary-grant schools. In the last Departmental Fifth and Lower Fourth Comparative examinations, 2 and 6 schools presented 69 and 263 pupils, of whom 51 and 110 passed respectively.

771. The extent of secondary instruction and the nationality of the pupils on the 31st March 1885 is shown in the comparative statement at foot.[16] Of the 623 middle schools, 108 gave instruction through the medium of vernacular. The number of pupils in all the secondary schools reading as a subject either English, a classical language, or a vernacular native language, respectively, was as shown in the next table [17] for 1884-85. The next statement [18] shows the average cost of educating pupils in the stage of secondary instruction in all the schools for the same year, the high and middle schools including the lower departments thereto attached.

772. The curricula of the four classes in the Government primary schools are shown in Vol. II, App. XCVI. Special vernacular curricula prescribed for European, East Indian, and Mahomedan boys, who are required to study the vernacular of the district in which they are living, are also there shown. As to the vernaculars the ability to read prose of ordinary difficulty, to write a good hand and to spell must be acquired in the primary school. The running hand used in petitions, letters and official papers must be also acquired, for writing and

[16] PARTICULARS OF SECONDARY INSTRUCTION ON THE 31ST MARCH 1885.

Branch of education.	Government and Board.		Aided.		Unaided.		Total.		Nationality.				
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Europeans and Eurasians.	Native Christians.	Hindoos.	Mahomedans.	Others.
High 1884-85 ...	26	3,656	78	18,913	16	3,818	120	26,387	2,627	2,605	19,435	1.527	193
Middle 1884-85 ...	154	11,490	405	24,025	64	3,706	623	39,221	2,855	6,473	27,927	1,759	207

reading. The elementary prose readers are studied on account of the general information they convey as well as for their language and style. Poetry is begun in preparatory class B, the higher of the two preparatory classes, and is continued in the two classes next above that. Arithmetic is taught on the English system with English figures, but through the medium of the vernacular with tables of Indian weights and measures and money. Daily instruction is given in this subject. Children between nine and ten are considered to be old enough to learn the compound rules, and those between ten and eleven are considered to be old enough to learn vulgar fractions. They begin by working sums in these rules ; the application of the rules to miscellaneous questions comes later. Map-drawing is practised in elementary as well as other classes, and the study begins with the geography of the neighbourhood and general notices of the world. General principles of hygiene are taught in the second class, and those of agriculture in the first and second. In the practising branch of the Madras Female Normal school, instruction is given in the Kindergarten system and also by object lessons. The object lesson system is also in force in some girls' schools in Madras town. The Upper Primary public examination tests the work of the highest of the Government primary classes, called "second class," and passes students from it into the middle school. The Upper Primary examination includes three compulsory subjects, and any two of five optional subjects. The compulsory subjects

[17] LANGUAGES READ BY PUPILS UNDERGOING SECONDARY INSTRUCTION ON 31ST MARCH 1885.

Schools.		Total of pupils.	Number learning		
			English.	A classical language.	A vernacular native language.
High ...	Govt. & Board ...	3,656	3,627	628	3,275
	Aided	17,001	16,597	3,457	13,576
	Unaided	3,713	3,521	664	3,275
	Total ...	24,370	23,745	4,749	20,126
Middle ...	Govt. & Board ...	9,960	7,975	216	9,816
	Aided	16,567	12,341	29	16,126
	Unaided	2,985	2,556	15	2,985
	Total ...	29,512	22,872	260	28,927

[18] ANNUAL COST OF EDUCATING STUDENTS IN THE STAGE OF SECONDARY INSTRUCTION IN 1884-85.

—	Departmental schools.			Aided schools.			Unaided schools.
	Total average annual cost of educating each pupil.	Average annual cost to Provincial funds.	Average annual cost to Local and Municipal funds.	Total average annual cost of educating each pupil.	Average annual cost to Provincial funds.	Average annual cost to Local and Municipal funds.	Total average annual cost of educating each pupil.
1	2	3	4	5	6	7	8
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
HIGH SCHOOLS.							
For boys, English	33 5 0	13 0 5	0 5 3	27 13 7	4 1 7	1 10 1	23 10 2
For girls do.	...	...	...	38 10 1	13 9 10	...	4 7 2
MIDDLE SCHOOLS.							
For boys... English	30 0 2	8 2 1	3 7 10	13 11 11	1 14 7	1 11 8	12 1 2
For boys... Vernacular ...	6 12 0	1 3 11	3 13 8	6 8 0	2 7 4	2 3 7	...
For girls... English	75 2 5	68 0 0	0 15 0	24 0 1	8 14 6	0 2 11	18 4 1
For girls... Vernacular ...	9 7 5	7 7 4	1 13 2	13 5 1	4 13 8	0 2 11	5 14 8
Training college for masters of secondary schools ...	502 14 2	502 14 2	...	...	...	...	...

are :—reading at sight with fluency and intelligence, and writing to dictation; arithmetic, including compound rules, vulgar fractions, and mental arithmetic applied to bazaar transactions; geography of Asia. The optional subjects are the following :—a vernacular language—recitation, 200 lines to be brought up, and ability to answer questions on the meaning, subject-matter and grammar; a second language—reading and construing, dictation and oral translation; history—India, England, or the World's history; hygiene; agriculture. The examination is conducted either by the Inspecting officers at the time of their visit or by the heads of institutions concerned. The Lower Primary public examination tests the work of the first class, and passes students into the second class. This test is as follows :—to read at sight with facility a moderately easy book in a vernacular language; to write to dictation from the same; to work sums in the first four rules of arithmetic, simple and compound, including easy miscellaneous questions. The test is conducted either by the Inspecting officers or by the heads of schools concerned.

773. In salary-grant aided primary schools the classes and curricula are much the same as in Government schools, though different text-books are often used. The upper and lower primary examinations also are held in these schools. The classes of results-grant primary schools are much the same as the four Government classes; but they are called fourth, third, second and first standard classes respectively, working directly for those grant-in-aid examinations. Needlework is taught in all girls' schools by a tailor or sewing-mistress.

774. The statement at foot [19] shows particulars of primary instruction in connection with the department for 1884-85; and the next statement [20] shows similarly the number of such schools in the different districts. There were thus in all 14,299 schools in 1884-85, or one school for about every 2,160 people, or one school for every 320 children of school-going age; or considering that few of the schools are girls' schools, about one school for every 160 boys. As to the distribution of the schools within each district, the number of schools varies with the prosperity of the people. In Coimbatore, for example, the schools are thickly scattered along the valley of the Cauvery, whilst they hardly exist in the poorer and drier parts of the district, where the villages are small. Again in Tanjore, in the delta talooks, schools abound; in the dry cultivation talooks in the south of the district they are scanty. The same is the case in Tinnevelly and Trichinopoly. Ordinarily where there are Brahmins there are schools. The number of scholars

[19] PARTICULARS OF PRIMARY INSTRUCTION IN CONNECTION WITH THE DEPARTMENT FOR 1884-85.

Class of schools.	1884-85. Number of schools.	Number of pupils.	Average number of pupils in each school.
1	2	3	4
Government, Local Fund and Municipal schools	1,211	39,447	33
Aided schools	8,657	229,331	26
Unaided schools under inspection	4,431	83,972	19
Total ...	14,299	352,750	25

[20] NUMBER OF PRIMARY SCHOOLS CONNECTED WITH THE DEPARTMENT IN THE DIFFERENT DISTRICTS IN 1884-85.

Districts.	1884-85.	Districts.	1884-85.	Districts.	1884-85.
Anantapore	303	Godavery	918	Salem	533
Arcot, North	672	Kistna	1,012	Tanjore	996
Arcot, South	759	Kurnool	345	Tinnevelly	1,327
Bellary	597	Madras	252	Trichinopoly	503
Canara, South	272	Madura	1,046	Vizagapatam	692
Chingleput	482	Malabar	835		
Coimbatore	624	Neilgherry	25		
Cuddapah	519	Nellore	446	Total ...	14,299
Ganjam	1,150				

in schools connected with the department receiving elementary education in 1884-85 was 395,374, and the proportion to population on the census of 1881 was 1·2808. The proportion of pupils has advanced of late more rapidly in towns than in rural tracts, though the difference in the two cases is not great. The proportion to population is highest in the towns of the Nellore district, viz., 7·1286; next in the Coimbatore district, viz., 5·7546; next in Tinnevelly, viz., 5·3578; next in the Kistna district, viz., 5·1302. There are three districts, one being Madras, in which the percentage is between 4 and 5. The next statement [21] shows the number of pupils learning English, a classical native language, and a vernacular native language in the different primary schools on the 31st March 1885. The next statement [22] shows the success of examinees in the different examinations belonging to the primary system in 1881-82; in these the results examinations are included.

775. The progress made in each grade of education during ten years is seen from the statistical abstract at foot.[23] The most noticeable feature in the tabulation is the great advance of primary education; from 8,306 boys' schools with

[21] NUMBER OF PUPILS IN PRIMARY SCHOOLS LEARNING DIFFERENT LANGUAGES.

Schools.	Total of pupils.	Number learning		
		English.	A classical native language.	A vernacular native language.
Government, Local Fund and Municipal Boards	36,793	5,095	36	37,324
Aided	216,038	12,951	867	216,171
Unaided	79,709	2,718	234	80,230
Total ...	332,540	20,764	1,137	333,725

[22] STATEMENT SHOWING THE RESULTS OF PRIMARY EXAMINATIONS IN 1881-82.

Nature of examination.		Number of institutions presenting examinees.	Number of examinees.	Number passed.	Percentage of those passed to those presented.
Special upper primary	Boys ...	99	1,128	457	40·51
	Girls ...	42	224	77	34·37
Upper primary	Boys ...	1,112	10,140	6,674	65·81
	Girls ...	120	729	498	68·31
Lower do.	Boys ...	3,566	22,166	15,334	69·17
	Girls ...	240	1,713	11,273	74·31
Result standard II	Boys ...	...	39,442	27,647	70·09
	Girls ...	...	2,935	1,837	62·58
Do. I	Boys ...	...	59,797	42,360	70·83
	Girls ...	...	5,049	3,209	63·55
Total ...		...	143,323	99,366	69·33

[23] STATEMENT SHOWING PROGRESS IN DIFFERENT GRADES OF EDUCATION FOR TEN YEARS.

—	Number of institutions		Number of pupils.		Remarks.
	For males.	For females.	Males.	Females.	
ARTS COLLEGES.					
1874-75	12	...	667	...	
1884-85	30	...	2,515	...	
FOR SECONDARY EDUCATION.					
1874-75	541	49	41,113	3,982	
1884-85	578	165	53,607	12,001	
FOR PRIMARY EDUCATION.					
1874-75	8,306	220	199,797	7,924	
1884-85	13,720	579	314,316	38,434	

199,797 pupils to 13,720 schools with 314,316 pupils, and 220 girls' schools with 7,924 pupils to 579 schools with 38,434 pupils. The expenditure on elementary education from provincial revenues only on each grade of education (omitting professional colleges) for a recent decade was as at foot. [24] During these ten years Government expenditure on university education in Government institutions rose from Rupees 64,600 to Rupees 1,22,000, and in aided colleges from Rupees 8,700 to Rupees 23,500. On secondary education in Government schools the outlay rose from Rupees 90,000 to Rupees 1,09,000, while in aided schools it fell from Rupees 1,90,000 to Rupees 90,000. Government primary schools cost Rupees 75,925 in the last year against Rupees 35,691 in the first, while the Government expenditure on aided primary schools rose from Rupees 1,00,000 to Rupees 1,07,000. In the same ten years, the expenditure on aided primary education from Local and Municipal funds increased from Rupees 87,619 to Rupees 2,12,576. The total aid to primary education from Public funds amounted to Rupees 3,20,010 in the year 1880-81.

776. DETAILS OF THE GRANT-IN-AID CODE.—The grants-in-aid mentioned above are given under three systems :—(*a*) By a graduated portion of total salary; (*b*) by payments for results obtained at the annual inspection; (*c*) by a combination of these two systems. The following is a brief sketch of the code.

777. The following are the conditions of the salary system. (*a*) The management must consist of one or more persons, who will answer for the permanence of the school for a given time. (*b*) The managers must agree to submit their school to inspection in all matters concerning secular instruction and general management; fees at prescribed rates must be levied; the percentage of free scholars is limited; a suitable building must be provided; the average attendance must not ordinarily fall below thirty in the case of boys' and twenty in the case of girls' schools, schools for poor Europeans in small towns and schools intended mainly for the less advanced and indigent classes or situated in backward localities being exceptionally treated as regards minimum attendance; teachers must devote ordinarily four hours a day to secular instruction, three hours being required in the case of teachers in college classes and of headmasters of secondary schools and assistant professors, and two hours in the case of principals of colleges with secondary schools attached. (*c*) Grants above 15 rupees are sanctioned by the Director, not exceeding 15 rupees by the Inspector. Teachers may have leave on half pay if the leave is taken in general accordance with the provisions of the Civil Leave Code applicable to Government Educational officers of similar standing. Salary-grants are paid monthly and the aid granted must not exceed the annual sum necessary to make good the difference between fee and endowment receipts and the total expenditure. (*d*) Grants vary first according to general standard of educational qualification of the teacher, and each general standard according to whether a teacher has (i) been trained in a normal school, (ii) passed the prescribed examination in method and teaching, (iii) passed the general standard test of the grade. For both male and female teachers there are three grades of certificates; collegiate, secondary and primary. The general education test for the collegiate grade is the Degree in Arts in an Indian University; for the higher secondary grade the First Examination in Arts in the same institutions; for the lower secondary grade the Entrance Examination to the same institutions or the Higher Examination for Women; for the higher primary grade a first or second

[24] EXPENDITURE FROM GOVERNMENT PROVINCIAL FUNDS ON EACH GRADE OF EDUCATION FOR TEN YEARS.

—		1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.
GRADE.		RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
University	Govt. ...	64,643	63,596	69,035	79,594	89,370	97,528	92,905	95,429	1,12,594	1,22,076
	Aided ...	8,722	10,142	13,094	13,531	17,716	19,240	21,829	21,896	23,759	23,499
Secondary	Govt. ...	90,256	85,445	88,680	87,041	1,11,727	94,814	1,10,385	1,03,692	1,03,353	1,09,759
	Aided ...	1,90,663	1,97,126	2,06,520	1,96,743	1,53,105	1,29,261	1,35,507	1,29,535	1,15,396	90,320
Primary	Govt. ...	35,691	34,869	38,807	46,595	52,816	70,412	75,111	87,051	82,129	75,925
	Aided ...	1,00,902	1,00,623	1,16,628	1,23,307	1,11,360	1,34,583	1,18,780	1,05,626	1,07,428	1,07,434

class in the Middle School examination, the first class being also the general test for admission to the public service; and for the lower primary grade, a third class in the Middle School examination or a special examination, which embraces an elementary knowledge of English or of a vernacular, or of both; of writing, dictation, composition, grammar and poetry; of arithmetic to vulgar fractions inclusive; of geography, general, and the Madras Presidency; and two of the following optional subjects—History of India, hygiene, agriculture, needlework (for female candidates). The teachers, male or female, educated in Europe or America, are graded according to circumstances by the Director of Public Instruction. The tests in school management are shown in an appendix to the Grant-in-aid Code. Salary-grants for male teachers are ordinarily calculated according to the following maximum scale of salaries:—(i) Principals of first-grade colleges, Rupees 400 to 600. (ii) Professors of first-grade colleges, Rupees 250 to 500; Principals of second-grade colleges, Rupees 250 to 500; Principals of large high schools and of superior training institutions, Rupees 250 to 500. (iii) Assistant Professors of first-grade colleges, Rupees 100 to 250; Headmasters of high and of secondary normal schools, Rupees 100 to 250; Lecturers or assistant masters in second-grade colleges, Rupees 100 to 250; Headmasters of large middle schools, Rupees 100 to 250. (iv) Assistants in high schools and tutorial assistants in first-grade colleges, Rupees 50 to 120; Headmasters of elementary normal schools, Rupees 50 to 120. (v) Headmasters of ordinary middle schools, Rupees 30 to 80; Assistants in large middle schools, Rupees 30 to 80; Headmasters of large primary schools, Rupees 30 to 80. (vi) Assistants in elementary normal and upper primary schools, Rupees 20 to 40; Headmasters of lower primary schools, Rupees 20 to 40. (vii) Assistants in lower primary schools, Rupees 10 to 20. But, with the sanction of Government, as regards the collegiate grade and with the sanction of the Director as regards the other grades a higher salary may be given than that entered in the above scale. The holders of certificates of the general education test are entitled for a limited period to grants of one-fifth of the total salary received within the above limits; the holders of ordinary certificates, i.e., certificates of having passed in method and teaching and of having been employed for two years as teachers, to grants of one-fourth of total salary; and holders of normal certificates to grants of one-third of total salary. For female teachers the rates are more liberal. The grants are ordinarily calculated on the following scale of salaries:—(i) Lady Principals of colleges, of superior normal and of high schools, Rupees 250 to 500. (ii) Assistant mistresses in colleges and high schools, Rupees 200 to 400; Headmistresses of high schools who have been brought out from Europe or America, Rupees 200 to 400. (iii) Headmistresses of elementary normal schools and of secondary schools, Rupees 80 to 200. (iv) Headmistresses of upper primary schools, Rupees 20 to 80; Assistant mistresses in lower secondary schools, Rupees 20 to 80. (v) Headmistresses of lower primary schools, Rupees 10 to 40; Assistant mistresses in primary schools, Rupees 10 to 40. In assigning grants the nature of the work to be performed by the teacher is to be taken into account. In the case of poor schools and schools for Mahomedans and of science, art and industrial schools and in schools in backward localities or for indigent or less advanced classes special relaxations of the above rates are permissible. Provision is also made for specially qualified teachers of music, singing and drawing and of Oriental or other languages and industrial teachers, superior and elementary, to gymnastic teachers, teachers of Kindergarten, and drill instructors, and to matrons, superintendents and assistant superintendents of boarding schools.

778. The results system, which is the system under which the general elementary education of the people is mainly being developed, is briefly as follows. The manager of the school, who is ordinarily the master, has to apply for the examination of certain pupils under certain standards, within a specified date, to the President of the Local Board in which the school is situated if the grant be payable from Local funds or to the Inspector if the grant be payable from Provincial funds. The President or the Inspector refers the application to the Deputy Inspector, who sends it after inquiry to the Inspector, who furnishes a list of all applications received to the President or the Inspector with his recommendation.

In the case of schools aided from Local funds the President finally settles what schools are to be examined, and the standards under which pupils may be examined. Such portions of the lists as relate to the standards, aided from Provincial funds, are forwarded by the President to the Director of Public Instruction for decision, with his recommendation. The lists, when sanctioned, are published in the Fort St. George or District Gazettes together with the date fixed for the examination of each school. In selecting schools and fixing standards eligible the funds available the financial needs of each school, the number and character of the existing schools and the educational wants of the neighbourhood and of the circle or Municipality itself are to be taken into consideration. An appeal lies to Government against any order refusing to admit a school for examination. The conditions of aid are briefly these. The school must not contain classes above the upper fourth of a Government school. Except in Municipalities, no school shall be eligible for admission to the annual list which has not, if a school for boys, an average daily attendance during the three months preceding the date of application of ten pupils, if a school for girls, of five girls. In schools in Municipalities the average attendance must not be less than twenty and ten respectively, except in schools for Mahomedan girls when an average attendance of five may be accepted. Preference is to be given to schools which are properly organized and provided with a fairly sufficient and efficient teaching staff, which have suitable accommodation, furniture and apparatus, comply with the provisions of the school fee notification and are continuously maintained; the prescribed returns and statements must be furnished; registers of admissions, attendance, and fee collections must be kept. The subjects of examination under the several standards are periodically notified. To be eligible for examination a pupil must have attended the school for not less than three hours a day for at least 90 days, or on the Neilgherries 75 during the 180 successive school-days preceding the examination; to be examined for a standard the pupil must have been studying for the standard throughout the 180 or, in the case of night schools, 120 successive school-days preceding the examination. Grants are of two classes—merit and ordinary. Pupils passing the Middle School examination in the first class are eligible for a merit grant, and those passing in the second class for an ordinary grant of the seventh standard; to be entitled to a merit grant in the other standards a pupil must obtain three-fourths of the maximum marks in optional subjects and one-half in compulsory subjects; to be entitled to an ordinary grant in the compulsory subjects a pupil must obtain one-fourth of the marks in arithmetic and one-third in the remaining subjects and on the whole as regards fifth and sixth standards, and one-third in each subject as regards the lower standards; ordinary grants in optional subjects are given if one-third of the maximum marks be obtained in the case of fifth and sixth standards and if two-fifths be obtained in the case of lower standards; the grant may be withheld for falsification, irregularity, &c.; immediately after the conclusion of the examination the examining officer must grant to the manager a memorandum in cheque form certifying the amount of grant earned and the particulars; the memorandum, when endorsed by the manager, may, if the grant is payable from Local funds, be cashed at the nearest treasury, or if from Provincial funds similarly after being countersigned by the Inspector of the division. The table at foot [25] shows the grants claimable under the several standards. Grants earned by male pupils under the third, second, and first standards in non-municipal towns and rural circles, the agency tracts of

[25] GRANTS CLAIMABLE UNDER THE DIFFERENT STANDARDS OF THE PAYMENT BY RESULTS SYSTEM.

(A.)—For Non-Europeans—Compulsory Subjects.

Grants.	Infant Standard.*	First Standard.	Second Standard.	Third Standard.	Fourth Standard.	Fifth Standard.	Sixth Standard.	Seventh Standard.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Ordinary	0 4 0	1 12 0	2 8 0	3 8 0	4 12 0	6 0 0	6 8 0	20 0 0
Merit	0 8 0	2 8 0	3 8 0	5 0 0	6 8 0	8 0 0	9 0 0	30 0 0

* Grants under this standard are not allowed in boys' schools without the general or special sanction of the Director or Local Board as the case may require.

Ganjam, Godavery and Vizagapatam excepted, where all grants are payable from Provincial funds, are payable from Local funds; grants earned by male pupils in Municipal towns under all standards are payable from Municipal funds; all other grants and all grants for European schools in towns or rural circles are payable from Provincial funds. All grants obtained by girls are debitable to Provincial funds, and in Madras only grants under the first, second and third standards obtained in poor schools are debitable to Municipal funds. No grant is allowed to male pupils for standards below the third whose age exceeds 15 years, or for the third and fourth standards whose age exceeds 20 years, or for the fifth, sixth and seventh standards whose age exceeds 25 years. This restriction is not applicable to night schools, but in these schools no pupil is admitted under the age of 12 years.

779. The combined system, which was begun in the western districts, gives aid in a double form; first by a salary grant towards the fixed stipend of the

(B.)—For Non-Europeans—Optional Subjects.

Subjects.	Infant Standard.†		First Standard.		Second Standard.		Third Standard.		Fourth Standard.		Fifth Standard.		Sixth Standard.	
	Ordinary.	Merit.	Ordinary.	Merit.	Ordinary.	Merit.	Ordinary.	Merit.	Ordinary.	Merit.	Ordinary.	Merit.	Ordinary.	Merit.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Object Lessons or Elementary Science.	0 2 0	0 4 0	0 2 0	0 4 0	0 4 0	0 6 0	0 8 0	0 12 0	1 0 0	1 8 0	1 8 0	2 0 0	2 0 0	3 0 0
Children's Occupation.	0 2 0	0 4 0	0 2 0	0 4 0	0 4 0	0 6 0	...	...	...	...	...	...	...	...
Action Songs ...	0 2 0	0 4 0	...	...	...	...	...	...	...	...	...	...	...	...
Geography ...	...	...	...	...	0 6 0	0 8 0	0 8 0	0 12 0	1 0 0	1 8 0	1 8 0	2 0 0	1 8 0	2 0 0
Vernacular Poetry.	...	...	...	...	...	...	0 6 0	0 8 0	0 8 0	0 12 0	0 12 0	1 0 0	1 8 0	2 0 0
Vernacular Grammar.	...	...	...	...	...	...	...	...	0 12 0	1 0 0	1 0 0	1 8 0	1 8 0	2 0 0
English	...	...	...	...	...	...	2 8 0	3 8 0	4 0 0	5 8 0	5 0 0	7 8 0	5 0 0	7 8 0
Indian History ...	...	...	...	...	...	...	...	...	1 0 0	1 8 0	1 8 0	2 0 0	1 8 0	2 0 0
English History ...	...	...	...	...	...	...	...	...	...	...	...	...	1 8 0	2 0 0
Drawing	...	...	...	...	...	...	0 8 0	0 12 0	1 0 0	1 8 0	1 8 0	2 0 0	2 0 0	3 0 0
Hygiene	...	...	...	...	...	...	0 6 0	0 8 0	1 0 0	1 8 0	...	...	...	...
Mathematics ...	...	...	...	...	...	...	...	...	...	...	...	...	2 0 0	3 0 0
Agriculture for boys only.	...	...	...	...	...	...	...	...	1 0 0	1 8 0	1 8 0	2 0 0	1 8 0	2 0 0
Mensuration for boys only.	...	...	...	...	...	...	...	...	1 0 0	1 8 0	1 8 0	2 0 0	2 0 0	3 0 0
Plain Needle-work for girls only.	...	...	0 12 0	1 0 0	1 0 0	1 8 0	1 8 0	2 0 0	2 0 0	3 0 0	2 0 0	3 0 0	2 8 0	3 8 0
* Fancy Needle-work for girls only.	...	...	...	...	...	...	...	...	...	..	1 0 0	1 8 0	1 4 0	1 12 0
* Domestic Economy for girls only.	...	...	...	...	...	...	...	...	...	...	2 0 0	3 0 0	2 8 0	3 8 0

Seventh Standard. Rupees 4 for each extra branch in which the pupil obtains one-third of the maximum marks.

* No grant is given for Fancy Needle-work in any Standard unless the pupil at the same Examination passes the test of the Standard in Plain Needle-work.

† Grants under this standard are not allowed in boys' schools without the general or special sanction of the Director or Local Board as the case may require.

Gymnastics: report *fair*, two annas; report *good*, three annas.

(C.)—European Schools.

Standards.	Compulsory Subjects.		Optional Subjects.			Drill and Gymnastics.		
	Ordinary Grant.	Merit Grant.	Fair.	Good.	Excellent.	Report.	Drill.	Drill and Gymnastics for Boys or advanced Calisthenics for Girls.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.			
Infant.	0 4 0	0 8 0	0 2 0	0 4 0	0 6 0			
I.	2 0 0	3 0 0	0 8 0	0 12 0	1 0 0			
II.	4 0 0	6 0 0	0 12 0	1 2 0	1 8 0			
III.	6 0 0	9 0 0	1 0 0	1 8 0	2 0 0			
IV.	8 0 0	12 0 0	1 8 0	2 0 0	2 8 0	Fair ..	2 annas ..	8 annas.
V.	10 0 0	15 0 0	2 8 0	3 0 0	3 8 0			
VI.	12 0 0	18 0 0	3 0 0	3 8 0	4 0 0	Good ..	3 „ ..	12 „
VII.	25 0 0	35 0 0	Rupees 5 for each extra branch in which the pupil obtains one-third of the maximum marks.			Excellent..	4 „ ..	1 rupee.
			Needle-work .. { 1st class .. Rs. 5. 2nd „ .. „ 3.					

NOTE.—The grant for singing is one-half that fixed for the other optional subjects.
No girl is entitled to a merit grant for the compulsory subjects who does not pass in plain needle-work.

teacher, and secondly by the results grants in addition earned by the school or a certain portion thereof. It is adopted in some Municipal and Local Fund schools proper, as well as in certain schools aided by these bodies. The new code recently introduced provides for schools being aided on the combined system. In regard to Local Fund and Municipal schools proper, i.e., schools maintained by Local Fund Boards and Municipalities, in which they retain the fees and are responsible for all charges, the system merely implies that the Boards remunerate their teachers partly by fixed stipends and partly according to the results obtained by them in the course of a year's teaching. In some places a very small fixed stipend is given and three-fourths of the total grant earned; in others a larger fixed stipend and only one-fourth of the results grant earned. Arrangements are made in larger schools worked on this system, by which the head teacher receives a small percentage of the grant earned by the teachers of the several classes. In schools of a quasi-private character aided by Local Boards or Municipalities on this system, the head teacher or sole teacher is regarded as the manager. He is allowed to retain the fees, and must supply all apparatus, books, &c. He receives a fixed monthly stipend, which is ordinarily rather less than one-twelfth of the maximum grant he would be likely to earn for one year's work. If the results grant exceeds the total of monthly stipends in one year, the balance is paid to him; if it is less he is liable to have the deficiency deducted from the following year's earnings and his fixed stipend reduced. Here, too, the practice differs greatly in different districts.

780. In addition to the grants claimable under the above systems in elementary schools, these schools, if of a permanent character, are entitled, under whatever system conducted, to building grants, to grants for furniture, maps, apparatus, diagrams, &c.; and in poor schools to grants for school-books to be used only in the school. In normal schools, grants are given for scholarships and in European schools for feeding and clothing. The Grant-in-aid Code also provides special encouragement for art and science, for gymnasia, for ordinary scholarships, for industrial schools, for school buildings, for libraries both school and public, and for the endowment of schools.

781. The salary-grant system demands responsible and trustworthy management. The results system is best suited to such elementary indigenous schools, as are gradually passing into the class of schools permanently "under inspection;" and also to large mission and poor schools in which the managers are unable to levy fees regularly, or to secure regular attendance, or to supply certificated or trained teachers; and to institutions in which the managers desire as little State interference as possible. The combined system, though at present tending to be more expensive than the results system proper, is the best system which has been devised to meet the case of the improved pyall schools in the rural tracts; this system induces teachers of such schools to qualify themselves for the elementary teachers' test, and gives the village teacher an authoritative position in his village.

782. Description of Indigenous Institutions not falling under any of the classes, above mentioned.—The high priests called Tumboorauns of the matts or religious colleges attached to temples generally give lectures or depute their former pupils to do so in the various works of Tamul literature. Such occupations are considered a part of their religious duty. The students are generally grown-up young men, intended less for secular than for clerical life. They pay no fee. On the contrary they receive food, and are an integral part of the religious establishment of the temples. The curriculum of such institutions is shown at foot.[26] The five following special seminaries for Sanscrit learning are to be noted:—The Triplicane Veda Pautashaula, the Triplicane Sanscrit school, the Shadagopa Nilayam at Conjeeveram, Patcheappah's Sanscrit school at Chidam-

[26] Curriculum of a Hindoo College.—In the high class indigenous institutions the curriculum contains briefly the following studies in Sanscrit:—the Vedas, Oopanishads, the Indian system of logic and various systems of philosophy, the grammar of Paniny, rhetoric, the Ramayanam, and other epic poems, the dramas of Calidass and other Hindoo dramatists, besides the Hindoo law treating of affairs both temporal and spiritual, and the minor literature that now enters the University curriculum; in Tamul the classical works, both literary and ethical, of the Madura Sungam or college, grammar, and the system of the Sheiva religion.

baram and the Sanscrit college, Trivaudy. In the case of villages also away from the seats of such institutions, there are to be found numerous pundits who regard it as a meritorious act to impart to the young the learning they have acquired. The only payment that students tender to these is the "Gooroo Dacshana" or presents graduated according to their means and given chiefly in kind; but the students not unfrequently render personal service to the pundits. The civil indigenous education of the population is found in the pyall school, a most ancient institution. This is so called from the fact of its being held generally in pyalls or low verandahs. The teacher's emoluments consist in small fees paid by well-to-do parents, in presents paid by all parents at the time of important local festivals such as the Dusserah, Sancraunty, &c., and occasional presents in cash or kind made by villagers when a youth begins the study of a new book or when the school closes for local holidays. In schools containing a considerable number of boys the teacher employs one or more of the older boys as monitors and assistant teachers. In Mussalman schools of this class no monthly fee is charged and the teacher is entirely dependent on presents. The father of each child sends with him as large an entrance donation as his circumstances permit. Whenever a new chapter of the Koran is commenced the pupils give from four annas to four rupees according to the means of the family, and at the commencement of every principal festival such as Moharram, Shab i baraut, Ramzan and Buckreed, presents varying from one fanam to four annas are given to the teacher. When the Koran is finished the teacher receives as handsome a reward as the circumstances of the parents will allow. These schools are gradually adopting the character of results schools. The foot-note [27] shows the curriculum of the ordinary Hindoo pyall school, and the next [28] the curriculum of a Madrissa. The table in the next note [29] shows the distribution in April 1881 of indigenous schools not brought under the supervision of the department.

783. Description of various special institutions, &c.—The University of Madras is constituted on the model of the University of London, in all respects except that it provides for the affiliation to itself of colleges and is purely an

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[27] Curriculum of a Hindoo Elementary School.—Five subjects are always taught in a pyall school, whatever its character. These are reading, grammar, writing, arithmetic, and memoriter exercise in the high dialect and Sanscrit. All the text-books are in the high dialect, and ordinary modern Tamul, &c., is not taught at all. The books used in almost every Tamul school are:—The Cooral of Tiroovulloovar, Auttisoody of Auveiyaur, Krishnan-toothoo, Punchatantram, Ramayanam of Cumban, Katachintaumany, the grammatical portion of study is drawn from the Nunnool and the Nigantoo. In Teloogoo schools the list is different and includes Sabhaparvam, Saptamascandam, Soomati Shatacam, Nalopakyaunam. There is no grammatical instruction in Teloogoo schools corresponding to that from the Nunnool in Tamul schools, but the Teloogoo Amaram takes the place of the Tamul Nigantoo. Some of the books in both lists have been printed. If the price is small, printed editions are used; otherwise the teacher alone has the book itself, and from that he daily copies on cadjan the portion required for the next day's work. Writing is taught in conjunction with the reading lesson. The pupil begins his writing lessons when he commences to learn his alphabet. He does not make strokes, pot-hooks, and hangers. His first lesson is a complete letter. The alphabet is almost everywhere written with the finger on the sanded ground. When the pupil becomes tolerably dexterous in doing this, he may then write either with an iron style on cadjan leaves, or with a reed on paper, and sometimes on the leaves of the Aristolochia Indica; or again with a kind of pencil on the palaca, or haligey which answer the purpose of slates. The two latter are the most common in Teloogoo districts. The palaca or haligey is an oblong board, about a foot in width and three feet in length. This board when planed smooth has only to be smeared with a little rice and pulverized charcoal, and it is then fit for use. The other is made of cloth, first stiffened with rice-water, and then covered with a composition of charcoal and several gums. It is then doubled into folds resembling a book. The writing on either of these may be effaced by a wet cloth. Each school-day, after 2 o'clock, the pupil copies the next day's lesson from the teacher's cadjan on to the palaca or portable black-board, which the parent must provide for his son, and which has to be blackened by the pupil as often as that is required, usually three or four times a day. The pencil used is made of soft gypsum, or balapam as it is called in the vernacular. Having copied his lesson, the pupil carries it to his master, who hears him read it two or three times, making the necessary corrections both in writing and verbal delivery. The palaca is then carried home, its contents are learnt by heart, and next morning the lesson is repeated from memory to the teacher. This exercise is a very profitable one, as it teaches how to write and read, improves the memory, and stores it with the best literature of past ages. To deliver the lesson, the boys go one at a time to the teacher, holding the palaca before them with its front to the teacher and its back to themselves. In this way every pupil obtains a thorough knowledge of four or five of the great classics of the language and becomes perfectly able to read his vernacular. It is not certain that any other system would produce better results. In one respect the system is better than that adopted in European schools for the poor. The classic books thus mastered are also the moral law of the nation, and exhibit a system of the ethics of the highest character. The Cooral forms the real moral code of the country, and there can be no doubt as to the benefit that must follow such moral training. In addition to the regular teaching thus referred to, it is common here for the teacher to borrow manuscript letters from his friends. These are carried to the school, read, copied, studied, and explained. The vernacular current hand is wholly different from the printed character. The native system of arithmetic is explained in Vol. II, App. XXXV. Beyond the subjects above noted, nothing is taught but matters connected with religious ceremonial; the calendar festivals, lucky and unlucky days, &c.

[28] Curriculum of a Mahomedan Madrissa.—The course of study in Mahomedan indigenous schools consists almost exclusively of instruction in religious works. First, the pupil is taught the rudiments of the Arabic language and he then immediately begins the Koran. When this is finished he receives instructions in Hindostany in such books as Sirathul Islam, Siratham Naiyat, Zanajeer, &c., all of which treat of religion. Persian is taught in advanced schools. No instruction is given in history, geography or arithmetic.

examining body, conferring degrees in Arts, Law, Medicine, and Civil Engineering. The Senate, which consists of a Chancellor, a Vice-Chancellor, and not less than thirty Fellows, is divided into the four Faculties just mentioned, and has power, subject to the approval of Government, to make bye-laws and regulations. The executive government of the University is vested in the Syndicate. This body appoints Examiners, regulates examinations, keeps the accounts, and carries on the correspondence of the University, with the aid of the Registrar, who is an officer appointed once in two years by the Senate. There is no limit of age for any of the University examinations. In the Faculty of Arts there are four examinations : the Matriculation, First Arts, B.A., and M.A. Examinations. In the Faculty of Laws examinations are held for the degrees of Bachelor of Laws and Master of Laws. The Faculty of Medicine has the degrees of Licentiate in Medicine and Surgery, Bachelor of Medicine, and Master in Surgery. Candidates who have obtained the degrees of B.A. and M.B. and C.M. are permitted to proceed to the degree of M.D. without examination on producing a certificate of having been engaged two years in the practice of their profession. Previous to the institution of the University, medical diplomas were conferred by the Medical College. The only examination in the Faculty of Civil Engineering is that for the degree of Bachelor of Civil Engineering. The table given below [30] shows the number of degrees conferred since the establishment of the University down to the end of 1884. Fees ranging from Rupees 10 to Rupees 50 are levied for various examinations of the University; and these cover the whole cost of the University and leave a surplus, the balance in favor of the University fund on the 1st April last amounted to Rupees 23,226-8-1. The tabular statements at foot [31, 32, 33] afford information in regard to the results of the Matriculation, F.A. and B.A. examinations. During the decade ending in 1880-81, 17 Bachelors of Arts obtained the degree of Master of Arts, 12 in Mental Philosophy and Sociology, 3 in English and Sanscrit, 1 in English

[29] DISTRIBUTION OF INDIGENOUS SCHOOLS NOT YET CONNECTED WITH THE EDUCATIONAL DEPARTMENT.

Districts.	Population as per census returns of 1881.	Number of villages having indigenous schools.	Number of indigenous schools.	Approximate number of children in indigenous schools.	Number of teachers employed in such schools.	Average monthly emoluments of such teachers in unaided schools.	Average remuneration given by pupils in such schools.
						RS.	RS.
Arcot, North	1,817,561	373	535	13,863	599	4	3⅞
Arcot, South	1,815,151	1,020	1,148	19,401	1,156	3⅞	3¾
Bellary	1,329,807	222	267	4,802	267	3⅝	3⅛
Canara, South	955,333	111	123	4,119	169	1⅛	1⅜
Chingleput	985,554	502	623	12,050	653	3⅞	2½
Coimbatore	1,658,567	519	627	11,158	646	4½	3¾
Cuddapah	1,120,118	145	165	2,892	168	4⅜	4
Ganjam	1,548,696	783	929	12,153	929	6½	3⅝
Godavery	1,792,866	522	641	16,027	730	7	5
Kistna	1,548,507	304	387	7,790	410	3¼	2⅞
Kurnool	680,888	58	66	1,305	74	4⅞	4¼
Madras	406,117	1	169	4,466	176	5½	5½
Madura	2,167,381	560	902	20,396	987	2⅛	1½
Malabar	2,326,237	297	672	25,683	710	3⅜	3¼
Neilgherry	90,633	...	...	...	...	...	...
Nellore	1,141,636	145	161	2,389	161	4⅛	3⅞
Salem	1,599,427	477	611	8,861	615	5⅛	5⅜
Tanjore	2,140,585	946	1,392	27,046	1,445	5⅝	4
Tinnevelly	1,700,910	715	897	22,714	959	4⅛	3⅝
Trichinopoly	1,216,503	283	367	9,845	429	4	3½
Vizagapatam	2,490,185	502	582	12,172	621	6¼	4¾
Total ...	30,532,662	8,485	11,264	239,136	11,904	4½	3½

[30] NUMBER OF DEGREES CONFERRED BY THE MADRAS UNIVERSITY FROM 1857 TO 1884.

B.A.	725	L.M.S.	2
M.A.	16	M.B. and C.M.	6
B.L.	148	M.D.	3
M.L	4	B.C.E.	19

and Latin, and 1 in Biology. The results tabulated show that the higher education of the natives of the country has been advancing under the influence of the University. The great disparity in the numbers passing the Matriculation, F.A., and B.A. examinations suggests the inference that a large number of students enter for the Matriculation examination who have no intention of prosecuting their studies even up to the F.A. standard.

784. Female education was for many years, as will have been observed from the sketch history, almost entirely in the hands of the various missionary societies. Of late years secular schools have been springing up in various parts of the Presidency, among which may be specially named several large schools established by the Maharajah of Vizianagram at Madras and in various parts of the Northern Circars. The Maharajah's schools at Madras are now under the

[31] STATEMENT SHOWING RESULTS OF THE B.A. UNIVERSITY EXAMINATION FOR TEN YEARS.

Year.	Madras.		Colleges in Native States.	Private study.	Total number	
	Government colleges.	Aided colleges.			Passed.	Examined.
1872	38	7	8	12	65	131
1873	8	8	1	12	29	83
1874	28	13	4	5	50	88
1875	24	8	6	17	55	85
1876	33	12	11	11	67	105
1877	41	14	10	5	70	129
1878	30	13	5	4	52	150
1879	49	32	14	45	140	231
1880	46	23	8	8	85	175
1881	54	27	18	14	113	195
Total ...	351	157	85	133	726	1,372

[32] STATEMENT SHOWING RESULTS OF THE F.A. UNIVERSITY EXAMINATION FOR TEN YEARS.

Year.	Government colleges.	Aided colleges.	Unaided colleges.	Colleges in Native States.	Private study.	Total number	
						Passed.	Examined.
1872	58	19	...	12	8	97	205
1873	43	13	...	18	2	76	240
1874	49	43	...	19	14	125	285
1875	71	49	...	33	30	183	342
1876	81	56	...	34	16	187	396
1877	66	43	4	14	4	131	418
1878	94	55	7	26	9	191	507
1879	74	44	12	33	9	172	663
1880	134	105	6	39	11	295	582
1881	60	71	2	27	7	167	478
Total ...	730	498	31	255	110	1,624	4,116

[33] STATEMENT SHOWING RESULTS OF THE MATRICULATION UNIVERSITY EXAMINATION FOR TEN YEARS.

Year.	Madras.			Schools in Native States.	Private study.	Total number	
	Government schools.	Aided schools.	Unaided schools.			Passed.	Examined.
1872	170	194	7	81	40	492	1,419
1873	227	259	13	87	25	611	1,530
1874	208	292	10	85	31	626	1,704
1875	248	403	10	27	27	784	1,911
1876	208	323	20	95	16	662	2,120
1877	337	644	33	157	79	1,250	2,469
1878	264	395	15	101	32	807	2,441
1879	128	150	19	50	9	356	2,597
1880	258	506	88	138	104	1,094	3,309
1881	336	648	114	164	107	1,371	3,519
Total ...	2,386	3,814	338	1,045	470	8,053	23,019

management of the Madras Branch of the National Indian Association and they receive aid from the State, and the rest though unaided are under inspection, and furnish returns. About fifteen years ago a Government Normal school was established at Madras for the education of teachers for native girls' schools, but it became in great measure a high school for East Indians and Europeans, and during its existence educated only 60 Hindoo and Native Christian teachers. It has been re-organized since and is now fulfilling the object with which it was originally started. Some five or six years ago the Government undertook the charge of a few elementary schools for girls, which had been established by some Local Fund Boards and Municipalities and during the past two or three years the number has been considerably increased, care being taken not to interfere with private effort. There were 35 such schools at the close of 1884-85, one in the hill tracts of the Godavery district, six in Nellore, three in South Arcot, four in North Arcot, four in Salem, four in Tanjore, five in Ganjam, two in Vizagapatam, one in Anantapore, three in Coimbatore, and two in Malabar. With one or two exceptions, they are all doing fair work and are gradually improving in standard, thirteen schools having already begun to give secondary education. Several of these schools are situated in towns of importance. In addition to the girls' schools maintained by Government, there were in 1884-85 fifteen girls' schools maintained by Municipalities and thirty by Local Fund Boards. The Municipal schools are in the towns of Adony, Caroor, Erode, Mayavaram, Nellore, Salem and Shreerungam, and the Local Fund schools in the districts of Bellary, Ganjam, Godavery, Salem, and South Arcot. The Government have also liberally aided private enterprise. There are also few large towns in the Presidency in which a mission society does not continue to offer facilities for female education, and in many cases of late more especially for the education of the girls of the higher castes. In Tinnevelly in particular, in pursuance of the policy inaugurated by Mr. Lash of the Church Missionary Society, who developed the Sarah Tucker Female Training School into an institution mainly for the training of girls of the respectable classes, who would be suitable for teachers in caste schools, between two and three thousand girls are studying in small elementary schools, maintained by the Church Missionary Society in different parts of the district, mostly under the management of a trained mistress assisted by her husband. The Sarah Tucker Institution turned out in 1879-80 as many as 35 schoolmistresses of the second and third grades. Mistresses educated in this institution are in demand throughout the Tamul districts both in mission and secular schools, but it is difficult to induce them to take service far from their homes except at comparatively speaking high salaries. To supply the demand for female teachers in the central Tamul districts, a training school has been opened at Trichinopoly under the auspices of the Society for the Propagation of the Gospel. There is a normal class attached to the Free Church Female Christian Institution, Madras, which produces some five or six teachers annually of the first, second, and third grades; and in the Northern Circars the agents of the Church Missionary Society have established a normal class or school in connection with their boarding institution for girls at Masulipatam. The table at foot [34] shows the distribution of the girls throughout the districts. A small proportion of

[34] DISTRIBUTION OF GIRL STUDENTS THROUGHOUT THE PRESIDENCY.

Districts.	In towns.	In rural districts.	Total.	Districts.	In towns.	In rural districts.	Total.
Anantapore	47	154	201	Madras	7,837	...	7,837
Arcot, North	582	1,284	1,866	Madura	760	1,224	1,984
Arcot, South	384	1,454	1,838	Malabar	1,646	3,447	5,093
Bellary	350	143	493	Neilgherry	336	96	432
Canara, South	481	731	1,212	Nellore	754	515	1,269
Chingleput	319	1,469	1,788	Salem	508	777	1,285
Coimbatore	709	735	1,444	Tanjore	1,646	1,599	3,245
Cuddapah	84	321	405	Tinnevelly	959	5,415	6,375
Ganjam	215	1,037	1,252	Trichinopoly	851	762	1,613
Godavery	993	4,029	5,022	Vizagapatam	1,057	887	1,944
Kistna	1,343	2,611	3,954	Total ...	21,892	29,027	50,919
Kurnool	31	336	367				

these are reading in pyall schools. Most aided girls' schools are aided on the salary-grant system, but results grants are in some cases given at rates 75 per cent. higher than those allowed for boys. Results grants are also given for needlework at rates ranging from 1 rupee to Rupees 4. Twenty-six girls' schools ranked as high schools and one hundred and thirty-nine as middle schools on the 31st March 1885, the rest, including all the Government and quasi-Government schools, are primary. During the ten years 1875–1885, the number of girls receiving instruction rose from 19,582 to 50,919 as seen in the statement at foot.[35] The extent of female education in Government, aided and unaided schools in 1884-85 is shown in the next statement.[36] To obtain the exact number of girls at school there must be added to the total of 32,299 girls on the rolls of actual girls' schools, 19,462 girls who were in boys' and private schools, while 842 must be deducted on account of the number of boys of tender age in girls' schools. This gives 50,919 as the exact number of girls at school on the 31st March 1885.

[35] NUMBER OF GIRLS RECEIVING INSTRUCTION FROM 1874-75 TO 1884-85.

No. of girls in	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.
Female schools.	11,906	13,028	14,796	14,845	18,277	18,417	20,892	22,887	26,850	27,795	31,099
Mixed do.	6,395	10,645	13,214	13,538	8,359	10,873	11,344	14,335 (Mixed and Lower class village boys' schools together)	16,624	19,492	19,457
Lower class village boys' schools.	1,158	...	...	1,638	...	...	...				
Normal schools.	123	120	141	185	116	129	119	157	197	263	363
Total ...	19,582	23,793	28,151	30,206	26,752	29,419	32,355	37,379	43,671	47,550	50,919

[36] NUMBER OF GIRLS UNDER INSTRUCTION IN THREE DIFFERENT CLASSES OF INSTITUTIONS.

Class of institution according to educational standard.	Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	Number of scholars on 31st March learning: English.	A classical language.	A vernacular language.
1	2	3	4	5	6	7	8
Government and quasi-Government Institutions.							
High schools ... English	...	...	...	...	...	...	...
Middle schools ... English	4	311	300	230	165	...	248
Middle schools ... Vernacular	17	1,219	1,111	800	...	...	1,219
Primary schools	61	2,654	2,470	1,852	...	...	2,654
Training schools for mistresses	4	72	71	62	13	...	59
Total ...	86	4,256	3,952	2,944	178	...	4,180
Aided Institutions.							
High schools ... English	24	1,912	1,913	1,659	1,906	16	300
Middle schools ... English	52	2,734	2,658	2,243	1,973	...	1,743
Middle schools ... Vernacular	58	4,724	4,659	3,490	...	10	4,724
Primary schools	347	13,293	13,048	9,776	710	69	13,121
Training schools for mistresses	6	261	259	229	220	...	260
Total ...	487	22,924	22,537	17,397	4,809	95	20,148
Unaided Institutions under regular inspection.							
High schools ... English	2	105	98	80	105	...	...
Middle schools ... English	4	135	121	106	128	...	42
Middle schools ... Vernacular	4	586	602	411	...	...	586
Primary schools	171	4,263	3,840	2,971	100	73	4,268
Training schools for mistresses	2	30	30	28	18	...	30
Total ...	183	5,119	4,691	3,696	351	73	4,926
Grand total ...	756	32,299	31,180	23,937	5,338	168	29,254

785. For Mahomedan education there are in all 13 Government combined schools in Madras, 3 Mahomedan departments attached to the Government High Schools at Chittore, Cuddapah, and Kurnool, and 9 Municipal schools for the special education of Mahomedans. All the Government schools are primary schools with the exception of the Madrissa-i-Auzam, which was raised recently to the status of a high school in consequence of the abolition of the junior department of the Presidency College. Salem has a Municipal Anglo-Vernacular primary school and Bellary 5 Municipal Hindostany schools. The towns of Cochin, Combaconam and Tanjore have each a Municipal Hindostany school. Of aided schools, with a special provision for Mahomedan pupils, may be mentioned the Harris' school, intended solely for Mahomedans, the mission schools at Ellore, Masulipatam and Trichinopoly, and 210 vernacular schools with 6,353 pupils aided on the results system in Malabar. Other educational facilities afforded to Mahomedans are the following:—(*a*) Arabic and Persian have been recognized as classical languages for the Matriculation and Arts examinations from the establishment of the University, each with a maximum of marks about one-fifth as large again as that allotted to a vernacular language. (*b*) Mahomedan pupils pay only half fees. (*c*) Originally three scholarships were provided for the special encouragement of Mahomedans, one being awarded on the results of the F.A. examination and two on the results of the Matriculation. In 1879, four additional scholarships were sanctioned on the results of the Matriculation examination, and this system, under which seven scholarships are annually awarded, still continues. (*d*) There is a Special Deputy Inspector of Mahomedan schools and a Special Inspecting Schoolmaster for the town of Madras. (*e*) There is an elementary normal school in Madras for Mahomedans. (*f*) The results grants allowable to Mahomedan pupils are 25 per cent. greater than the rates for Hindoo pupils.

786. The Madras Medical College, the School of Agriculture, and the Civil Engineering College have already been noticed in this chapter. The Madras School of Industrial Arts has been noticed in Chapter VII. The Lawrence Asylum will be noticed in Chapter IX under the head of Charities. The only other institution of a special nature is the Law Class of the Presidency College. This branch of the college was re-organized in 1884 and there are now two professors. The majority of the students are persons who are following various avocations other than that of law.

787. A Government examination is held in December of each year to test male and female candidates in the principles of method and school management for normal and ordinary certificates as defined in the Grant-in-aid Code. Each candidate has to pay a fee of one rupee and the examination is self-supporting. Under the new Grant-in-aid Code recently framed by Government the examination will be held twice a year from 1886. The standard of the examination is given below.[37] This examination is not obligatory on teachers of lower primary grade.

788. Two different systems have been tried in the normal schools of this Presidency. Originally the normal school students were kept under instruction for long periods and were prepared for successive Certificate and University examinations. On admission they were required to execute an agreement binding themselves to serve as teachers in a Government or aided school for five years, and during the whole period of their training they were supported by a scholarship, which they were bound to refund in the event of their failing to fulfil the agreement into which they had entered. Under this system the attention of both masters and pupils was too much directed to success in the examinations, and the training

[37] NATURE OF THE TESTS IN SCHOOL MANAGEMENT.—(1) *First, Second, and Third-grade Schoolmasters and First-grade Schoolmistresses.* "a" To answer questions on the best methods of teaching English and Vernacular reading, spelling, grammar, composition, translation, writing, arithmetic, geography, and history in a high school. "b" To answer questions in the art of oral teaching generally. "c" To answer questions on the form of school registers, the mode of keeping them, making returns from them and regarding the correct forms of official correspondence. "d" To write notes of a lesson on a given subject. "e" To answer questions on the organization of a high school. "f" To answer questions connected with moral discipline, as affecting the character and conduct of the pupils of a high school. (2) *Fourth-grade Schoolmasters and Second-grade Schoolmistresses.* "a" To answer questions on the best methods of teaching, reading, spelling, grammar, writing, arithmetic, geography, and history in a middle school. "b" To answer questions on the art of oral teaching generally. "c" To answer questions on the form of school registers, the mode of keeping them and making returns from them. "d" To write notes of a lesson on a given subject. "e" To answer questions on the organization of a middle school.

became a secondary consideration. Those who accepted the scholarships and signed the agreements not unfrequently did so without any real intention of becoming teachers, their object being to pass the University examinations and to obtain employment in the Revenue or Judicial departments. This system has been abandoned. No preparation for University examinations is given now in any of the normal schools. In the Madras Government Normal school students who have already passed such examinations are trained for nine or ten months. It trains in this way those who are already graduates, First Arts men, and matriculates; these receiving scholarships of Rupees 15, 12½, and 10, respectively, with some variant rates. The normal students of this institution come as a rule from the high and middle class schools where they have been employed or have been appointed as masters, and return to those schools after their course of training. On the 31st March 1885, this school contained seven graduates, eight F.A.'s and twenty-five matriculates. Besides these seven military students were receiving instruction. Of the total forty-seven, thirty-three were by caste Brahmins, six were Shoodras, three were Native Christians, and five were Mahomedans. Thirty-seven teachers left the institution during that year on the completion of their training. The Government have raised the annual grant for scholarships from Rupees 4,320 to Rupees 6,000 with effect from 1st April 1885, so as to allow of the admission of from 40 to 45 students. The Government *Female Normal school at* Madras trains mistresses of all grades. *Of the thirty scholarships allowed in the* school, sixteen are reserved for caste Hindoos, eight for Native Christians and six for Europeans and Eurasians. Europeans and Eurasians are admitted for one year's training only, while the other normal pupils prepare for examinations while under training. Native students receive stipends ranging from Rupees 6 to Rupees 12, and in the case of pupils whose parents or guardians do not reside in Madras or in its neighbourhood, an extra allowance of from Rupees 4 to 6 is also given. Six girls of any class are admitted as free scholars. The remainder of the Government normal schools, and indeed of all the normal schools in the Presidency, are for the training of teachers for primary schools. Four elementary normal schools are maintained by Government in the mofussil; at Narsapore, Russellcondah, Tellicherry and Vizagapatam. A normal class for training teachers for hill schools is attached to the Government Middle school at Goonapore, in the Vizagapatam district, and a similar class has been opened in connection with the Bhadrachellam Middle school to train teachers for primary schools in the Upper Godavery district. An elementary normal school has recently been established in Madras to train teachers for the Mahomedan schools. In the foot-note [38] are given the rules for

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[38] RULES OF ADMISSION TO GOVERNMENT ELEMENTARY NORMAL SCHOOLS.—The following rules have been prescribed for admission to these schools:—(1) In the selection of candidates for admission into elementary normal schools the preference should be given to men of the following classes:—"a" Those who are actually engaged in teaching a pyall school as a means of livelihood and whose regular profession it is. "b" The relatives of pyall schoolmasters, sent by them to be trained, and then to return to their schools as assistants. "c" Men formerly employed as pyall schoolmasters and desirous of returning to that profession. "d" Men desirous of becoming pyall schoolmasters. "e" Men already employed in Local Fund and Municipal schools and sent by the Local Fund Boards and Municipalities to be trained. "f" Men sent by the Local Fund Boards and Municipalities with provisional appointments to posts, the nature and value of which should be stated. "g" Young men from the hill schools of the Ganjam district and from the schools of the Bhadrachellam and Rekapully talooks selected and sent to be trained for posts in these schools. (2) Ordinarily students should be between eighteen and thirty years of age. (3) An entrance examination of candidates for admission shall be held in November or December and a notice of the examination shall be published by the Inspector of Schools in the District Gazette two months prior to the examination. The examination shall be partly vivâ voce and partly in writing. The precise standard of the examination may vary in different localities and will therefore be fixed by the Inspector of the division, but ordinarily it should not fall below the Lower Primary School examination. If possible the Inspector should arrange his tours so as to be present one year at the entrance examination of the elementary normal school in one district, and another year at that of another, so as to take them all in turn. (4) The candidates must be persons of good character, free from serious bodily defect or deformity, in good health, and vaccinated. (5) The scholarships will ordinarily range in value from Rupees 3 to Rupees 5, and will be fixed by the Director of Public Instruction on the recommendation of the Inspector. (6) Ordinarily they will be tenable for twelve months, but candidates who have failed in their examination may, if recommended by the Inspector, be allowed a second year. If there are no such men, a few of those who have passed may be allowed to hold their scholarships for a further period of three months, so as to teach the practising branch until a sufficient number of the students of the new batch are ready to take their places. (7) Normal students will be admitted in January, but they all be considered on probation for one month, and if the headmaster reports that any of them is not likely to prove an efficient schoolmaster, his scholarship will cease. (8) Every normal student shall be required on admission to sign an agreement binding himself to remain under training during the prescribed period, to take up his appointment at the end of his training, and to remain in it for five years, or to open a school and place it under instruction for the same period, and to refund his scholarship in the event of his failing to fulfil these conditions or of his being dismissed for misconduct or inefficiency. If the normal student is a minor, his parent or guardian must execute the agreement. Students sent by Native States for training in elementary normal schools may be admitted on payment of an annual fee of Rupees 50. They are not entitled to receive scholarships from this Government or the Municipal or Local Boards under its control.

admission to the Government elementary normal schools, and the course of study pursued will be found in Vol. II, Appendix XCVI. The course extends over two terms of six months each. The curriculum followed in these schools is that laid down for the Special Upper Primary Examination :—Vernacular language, Arithmetic, Geography, and any two of the following alternative subjects—History, Hygiene, Agriculture and Needle-work. The Inspectors or Deputy Inspectors examine the students in teaching power, and normal certificates are issued on favorable report. There were 32 Local Fund, 1 Municipal (Madras), 5 aided and 2 unaided normal schools for masters, and 1 Local Fund, 6 aided and 2 unaided normal schools for mistresses at work at the close of 1884-85. There were on the whole 1,155 male and 363 female normal pupils under training in the different normal schools. It has been estimated that two-thirds of the teachers who now hold teachers' certificates have been trained in normal schools. About 600 trained teachers issue from these institutions annually.

789. There are at present five kinds of Government stipendiary scholarships, that is to say (1) scholarships awarded on the result of the University examinations; (2) scholarships given to Ooriyah pupils in the talook schools of the Ganjam district; (3) scholarships held by normal students; and (4) scholarships tenable in the Civil Engineering College, the School of Arts, and the School of Agriculture. No scholarships have as yet been instituted in primary schools for boys, whether Government, Local Fund, Municipal, or private, connected with this department, but the Government have recently sanctioned a scheme for the award of scholarships in Government girls' schools, by which a girl on passing the Lower Primary examination (or Third Results standard) receives a stipend of 1 rupee per mensem, on passing the Upper Primary examination (or Fourth Results standard) Rupees 2 per mensem, on passing Special Upper Primary examination (or Fifth Results standard) Rupees 3 per mensem. The scholarships are tenable for one year, conditional on good conduct. The scholar may continue her studies in any other school, Government, Local Fund, Municipal, Aided, or under inspection. The scholarships obtainable in a school may not exceed 3 for the Lower Primary, 2 for the Upper Primary, and 1 for the Special Upper Primary, respectively; or 10 per cent. of the total attendance in the school. Some Local Fund Boards and Municipalities have followed the action of Government. The extract at foot [39] from standing orders for Government schools will show the details

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[39] SCHEME OF GOVERNMENT SCHOLARSHIPS AND FREE SCHOLARS—(1) *Government Scholarships.*—A certain number of Government scholarships are awarded annually on the result of the Matriculation and F. A. examinations; the substance of the rules regarding these scholarships is as follows :—I. No stipendiary scholarships are given to districts in which there are colleges educating up to the B. A. degree. II. In each district in which there is an institution educating up to the F.A. standard, one scholarship of Rupees 15 is awarded under the following conditions :—(*a*) The candidate must have been a pupil at the time of examination and for one year previous in some institution in the district. (*b*) At the time of the examination his age must not have exceeded twenty years. (*c*) He must not be in receipt of any other scholarship. (*d*) He must engage to prosecute his studies up to the B.A. degree in some college connected with the Madras Educational Department, in which satisfactory provision is made for educating students up to the B.A. standard. (*e*) The scholarship is tenable for two years, but is liable to be forfeited for idleness or misconduct. (*f*) In the event of there being several eligible candidates from the same district, the scholarship will be awarded to the candidate who stands highest in the list. III. In addition to the above scholarships, one scholarship of Rupees 15 is awarded to any Mahomedan, and one of Rupees 15 to any Ooriyah, who has passed the First Arts examination, without any limitation with regard to age or district, but subject in other respects to the same conditions as the other scholarships. IV. In each district in which the highest grade of school is one educating up to the Matriculation standard, one scholarship of Rupees 10 is awarded under the following conditions. In the Kurnool district six scholarships are awarded under the same conditions. (*a*) The candidate must have been a pupil at the time of the examination, and for one year previous in some institution in the district. (*b*) At the time of the examination his age must not have exceeded eighteen years. (*c*) He must not be in receipt of any other scholarship. (*d*) He must engage to prosecute his studies for the F.A. examination in some college or school connected with the Madras Educational Department, in which satisfactory provision is made for educating students up to the F.A. standard. (*e*) In the event of his failing to pass the F.A. examination at the end of two years, the scholarship will be forfeited. (*f*) In the event of his obtaining a place in the second class at the F.A. examination, the scholarship will not be increased but will be tenable for two years longer, during which the scholarship-holder must prosecute his studies for the B.A. degree in some college connected with the Madras Educational Department, in which satisfactory provision is made for educating students up to the B.A. degree. (*g*) In the event of his obtaining a place in the first class at the F.A. examination, the scholarship will be raised from Rupees 10 to Rupees 15, and will be similarly tenable for a further period of two years. (*h*) The scholarship will be liable to be forfeited at any time for idleness or misconduct. (*i*) In the event of there being several eligible candidates from the same district, the scholarship will be awarded to the candidate who stands highest in the list. V. In addition to the above scholarships, six scholarships of Rupees 10 are awarded to any six Mahomedans, who have passed the Matriculation examination from any institution connected with the Madras Educational Department, without any limitation with regard to age or district, but subject in other respects to the same conditions as the other scholarships. VI. In case of the death of a scholar, the scholarship will be awarded to the next F.A. student or Matriculate in the examination list, provided he fulfils the conditions generally, and in the matter of age was within the limit at the time of the examination. One Government scholarship of Rupees 6 is attached to each of the Ooriyah middle schools in the Ganjam district, and to the Goonapore school in the Vizagapatam district, and is awarded to the best Ooriyah pupils of these schools. The scholarship-holders are required to proceed to the high school of Berhampore and

for the scheme of scholarships and free scholars in force in Madras. Chapter VII of the new Grant-in-aid Code provides a scheme of scholarships, and in future it is intended to promote the education of talented, but poor pupils, and the advance of higher education among backward classes, and in backward tracts by this means alone, abolishing at the same time most of the stipendiary scholarships now given for general education.

790. CONSTITUTION OF GOVERNMENT DEPARTMENT.—The Government Department of Instruction is administered by a Director, assisted by seven Inspectors, who are graded officers, and an Inspectress of Girls' Schools. The charges of the several Inspectors are shown at foot.[40] The Inspectress of Girls' Schools has charge of all girls' schools in the third, fourth and fifth divisions and in the districts of Coimbatore and Trichinopoly. The vernacular of the first division is chiefly Teloogoo; of the second, chiefly Teloogoo also; of the third, about equally divided between Teloogoo and Tamul; of the fourth, chiefly Tamul; of the fifth, Tamul; of the sixth, Tamul and Malayalam; and of the seventh Canarese. These seven Inspectors and the Inspectress of Girls' Schools are assisted by the staff of Deputy

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to prosecute their studies up to the Matriculation standard. The scholarships are tenable for four years subject to the holders passing the Middle School and Comparative examinations. (2) *Endowed Scholarships.*—Besides these Government scholarships, there are ten endowed scholarships in connection with certain Government schools. (3) *Free Scholars.*—The number of free scholars in Government schools is limited to five per cent., and in aided institutions to fifteen per cent. in the college, ten per cent. in the high, and five per cent. in the middle and primary departments exclusive of students upon endowments. The only free scholarships given in Government schools are those coming under the following heads:—I. The Principal of a first-grade college and the headmasters of schools under the control of the Inspector, with the sanction of that officer, may admit, as free scholars or as scholars paying fees at favorable rates, to the college or high school department, a pupil who has acquitted himself very satisfactorily in the F.A. examination, the Matriculation examination, the Middle School examination, either of the Comparative examinations, or the Upper Primary examination, provided the pupil—(*a*) makes his application immediately after the results of the examinations concerned are known; (*b*) has not joined another institution in the term in which the application is made, or, if he has joined, makes his application with the approval of the headmaster of that institution; (*c*) was in attendance at a recognized institution during the whole of the two terms of the school year to which the examination concerned was the termination, and has paid his fees for these terms; (*d*) is certified to have conducted himself well during the preceding year; (*e*) is certified not to be in a position to pay the whole or part of the prescribed fee; (*f*) is not of an unsuitable age for the class in which he will be placed. II. The percentage of such scholars does not exceed five in any department without the express sanction of the Director. In all cases the admission of a free scholar must be noted in the monthly return, with a brief statement of claim to such concession. III. The grant of a scholarship must be limited to one year, but may be extended, if the holder has given satisfaction and has secured promotion to a higher class at the end of the year. IV. A scholarship will be forfeited by misconduct, idleness or irregularity in attendance. V. In the selection of free scholars, the claims of applicants belonging to indigent, backward or socially inferior classes are specially considered; also the educational condition and means of the town or village to which the applicant belongs. VI. A free scholarship, tenable for two years in a Government college selected by the Director, will be awarded by him, on the recommendation of the Inspector of Schools of the division, or the Principal of a Government college to any master holding a permanent post in the Government service, who having passed the F.A. examination desires to study for the degree of Bachelor of Arts. The free scholar must study the optional subject recommended by the Inspector or Principal and approved by the Director. During the tenure of the scholarship, leave of absence from his appointment will be granted on forfeiture of full pay. The scholarship will be withdrawn for misconduct or neglect of duty.

[40] TABLE OF INSPECTORS' DIVISIONS.

Divisions and districts.	Area of districts in square miles.	Population of districts.
First Division.		
Ganjam	8,313	1,548,696
Godavery	7,097	1,792,866
Vizagapatam	18,344	2,490,185
Total ...	33,754	5,831,747
Second Division.		
Anantapore ... ... } Bellary ... ... }	11,007	1,340,337
Cuddapah	8,367	1,120,118
Kistna	8,036	1,548,507
Kurnool	7,358	711,555
Total ...	34,768	4,720,517
Third Division.		
Chingleput	2,753	985,554
Madras	27	406,117
Nellore	8,462	1,220,335
Total ...	11,242	2,612,006

Divisions and districts.	Area of districts in square miles.	Population of districts.
Fourth Division.		
Arcot, North	7,139	1,817,561
Arcot, South	4,873	1,815,151
Salem	7,483	1,599,427
Total ...	19,495	5,232,139
Fifth Division.		
Madura	9,502	2,167,381
Tanjore	3,654	2,140,585
Tinnevelly	5,176	1,700,910
Total ...	18,332	6,008,876
Sixth Division.		
Coimbatore	7,432	1,658,567
Malabar	6,002	2,333,852
Neilgherry	749	90,633
Trichinopoly	3,515	1,159,306
Total ...	17,698	5,242,358
Seventh Division.		
South Canara	3,902	959,020

Inspectors shown below.[41] There is also a Deputy Inspector of Mahomedan schools, who travels in the second and third divisions inspecting middle and elementary Mahomedan schools. These Deputy Inspectors are divided into seven classes as shown below.[42] Each deputy is provided with a clerk. To facilitate inspection work additional Deputy Inspectors were once provided by certain Local Boards from Local funds as shown below.[43] Their salaries varied from Rupees 60 to Rupees 80. But all these deputies have since been brought on the Provincial list. As there are 157 talooks in the Presidency, the average number of talooks in charge of an officer of this grade is a little more than two and the ranges are equally distributed among them with a few exceptions. The Deputy Inspectors are assisted in the charge of elementary schools by a class of subordinates denomi-

[41] NUMBER OF DEPUTY INSPECTORS IN THE DIFFERENT DISTRICTS, &c.

Divisions and districts.	Number of Deputy Inspectors.	Divisions and districts.	Number of Deputy Inspectors.
First Division.		*Fourth Division.*	
Ganjam	3	Arcot, North	4
Godavery	4	Arcot, South	4
Vizagapatam	3	Salem	3
Total ...	10	Total ...	11
		Fifth Division.	
		Madura	4
Second Division.		Tanjore	4
Anantapore	3	Tinnevelly	4
Bellary	2		
Cuddapah	3	Total ...	12
Kistna	4		
Kurnool	4	*Sixth Division.*	
		Coimbatore and Neilgherry	3
Total ...	16	Malabar	3
		Trichinopoly	2
		Total ...	8
Third Division.			
Chingleput	2	*Seventh Division.*	
Madras	1	South Canara	2
Nellore	3		
		Deputies to the Inspectress of Girls' Schools ...	3
Total ...	6	Deputy Inspector of Mahomedan Schools ...	1
		Superintendents of Hill Schools, Ganjam and Vizagapatam districts	2

[42] CLASSIFICATION AND PAY OF DEPUTY INSPECTORS.

Class.	Number.	Salary.
		RS.
First	2	250
Second	3	200
Third	5	175
Fourth	10	150
Fifth	12	125
Sixth	27	100
Probationers	10	75

[43] ADDITIONAL DEPUTY INSPECTORS PROVIDED BY LOCAL FUND BOARDS.

District.	Circle or range of the district.	Number of Additional Deputies.
Arcot, North ...	Pulmanair range	1
	Vellore do.	[illegible]
Arcot, South	Tiroocoilore do.	[illegible]
Bellary ...	Hurpanhully do.	1
	Penoocondah circle ...	1
Kistna	Goontoor circle	1
Kurnool	Cumbum range	1
	Total ...	7

nated Inspecting Schoolmasters. The table below [44] shows their distribution in 1884-85. There are, besides, two officers of the same standing, styled Superintendents of Hill Schools, employed in the Ganjam and Vizagapatam agency tracts. Some Municipalities have of late been employing certain teachers to supervise the elementary schools in the towns. There were ten such superintendents at the close of 1884-85.

791. The Inspectors of the department exercise a disciplinary control over all subordinates, that is to say, all educational employés in their divisions, excepting masters in first-grade colleges, in the second-grade colleges at Calicut and Mangalore, and in the Madras Normal school; whether those subordinates are paid from Provincial or Local funds. With the exception of Provincial servants drawing Rupees 30 and under they possess no patronage; as regards Provincial servants the appointments resting with the Director, and as regards Local Fund and Municipal servants with the Presidents of the Municipalities or Boards. The practice however is for the Presidents to commit to the Inspector very considerable power regarding the employment and dismissal of their educational servants. The duties of the Inspectors are chiefly confined to the inspection and examination of second-grade colleges, high and middle schools, whether Government, aided, or under inspection in their divisions, of normal schools, and of primary schools attached to colleges, high and middle schools. They also supervise their deputies in the control or inspection of lower-middle and primary schools in their ranges and in the management of the Inspecting Schoolmasters. Lastly they have the general care of all matters connected with education in their divisions, more especially such as come before them in their capacity of advisers of District Boards and Municipal Councils, of which they are usually members. The Deputy Inspectors ordinarily have charge of Government middle and elementary normal schools in their ranges, but their chief duties are connected with the control, examination, or inspection of the primary schools in their ranges, according as the schools are Government, Board or private. They are immediately responsible for the work of the Inspecting Schoolmasters and of the masters of elementary normal schools. The work devolving on Inspecting Schoolmasters is the improvement of the elementary pyall schools throughout the country, by visiting and instructing the teachers, and in a measure the scholars of such schools; also by inducing them to bring these schools under Government inspection and to conform to the rules prescribing the subjects to be taught in such schools and the method of such teaching.

792. The system of inspection in force is as follows. With regard to Government institutions the Inspector of the division accompanied by his deputy, who aids in the vernacular work, examines the primary classes once a year in certain subjects, and reports thereon immediately to the Director. These classes are also tested for promotion annually according to the regulations of Upper and Lower Primary examinations. In the middle schools the classes are inspected at shorter intervals by the Deputy Inspector. The system of inspection of public institutions maintained from Municipal and Local funds is similar to that above stated; but in the case of schools receiving aid from Provincial funds under the results system the pupils presented are carefully examined for grants under the results rules by the inspecting officers. Some of these Local fund and Municipal institutions are practically administered by the department, but others are directly

[44] NUMBER OF INSPECTING SCHOOLMASTERS IN THE DIFFERENT DISTRICTS.

Anantapore	1	Madura	10
Arcot, North	1	Malabar	16
Arcot, South	4	Neilgherries	1
Bellary	6	Nellor	6
Canara, South	3	Saleme	9
Chinglepat	6	Tanjore	14
Coimbatore	10	Tinnevelly	3
Cuddapah	5	Trichinopoly	6
Ganjam	7	Vizagapatam	6
Godavery	10		
Kistna	12	Total	143
Kurnool	4		
Madras	3		

managed by the Boards. The primary classes in private institutions under superior management, if aided under the salary system, are examined annually by the Inspector aided by his deputy; but the examination is not ordinarily of great length, more especially since a rule made in April 1880 forbidding private schools to promote to the Upper Primary department pupils who have not passed the public Lower Primary examination. In schools aided on the results or combined system, a careful examination under the several standards is carried out in the presence of the managers and others. Although in all schools under inspection an Inspector, or his deputy, may claim entry when he pleases during school-hours for inspection purposes, yet it is usual to give notice some time beforehand of the proposed date of inspection. In the more important private schools, the managers of which are ordinarily the headmasters, and in all such as are aided on the salary system, the inspection is carried out as above noted; but in the smaller schools, especially those in the rural tracts, aided on the combined or results system, the inspection is ordinarily conducted by the Deputy Inspector. This officer should visit such schools at least once in the interval between his annual examinations for results; and the Inspecting Schoolmasters, where their aid is still needed, once a quarter. The present staff of these officials is however at present insufficient in most districts to carry out such a programme in its integrity. Primary departments in schools of the higher class under inspection are inspected once a year, but except in institutions, such as the Vizianagram College, for the management of which the department is in a measure responsible, the inspection is of a very cursory character. In regard to elementary pyall schools the inspections by the Inspecting Schoolmasters are intended to be frequent, in order that the schoolmaster may receive assistance in adapting his teaching to the authorized standards and methods. As regards schools "not under inspection," no formal inspection is made of the larger institutions; but it is the practice to visit such schools should the managers desire it, and aid them by advice. No reports of such visits are recorded. It is the duty of the Deputy Inspector or of his assistant, the Inspecting Schoolmaster, to visit all indigenous schools and other pyall schools, and to endeavour to bring them under inspection by pointing out the advantages to be derived therefrom, and by aiding them in procuring the necessary books, &c., and by instructing the teachers therein. It is by this means that the schools, indigenous and pyall, throughout the country are now rapidly passing under the supervision of the department. The powers of inspecting officers in aided schools are regulated by the Grant-in-Aid Code, which provides as a condition of aid under the salary system that a manager must bind himself "to subject the institution, on behalf of which the application is made, together with its current accounts, list of establishment, time-table, scheme of studies, and register of attendance to the inspection of a Government Inspector, such inspection and examination relating only to the general management and to the secular instruction, and having no reference to any religious instruction which may be imparted;" and it is a condition of aid under the results system that "regular registers of admission, attendance, and fee collections shall be kept and shall be submitted for inspection when demanded."

793. The general education tests and the departmental test in the principles of method and of school management which teachers must pass who desire a complete certificate have been explained above. There were 21,402 teachers employed in 1884-85 in the schools connected with the department. Of these 268 formed the European staff, and 3,272 were holders of normal and ordinary, and 3,480 of general education certificates, while 14,382 men have passed no examination. These teachers are chiefly employed in primary schools and classes, a few being vernacular pundits, employed in superior institutions.

794. Sixteen superior officers of the educational department, including the Inspectors of Schools, the Principals of the Presidency, Combaconam, Rajahmundry and Agricultural Colleges, and the Professors of the Presidency College, are graded in classes, and their salaries rise by annual increments from the minimum to the maximum prescribed for their class. The Principal and Professors of the Medical College, who belong to the Indian Medical Department, and the Principal of the Civil Engineering College, who is an officer of the Corps of Royal Engineers, are subject to special regulations. The principle of giving salaries rising by increments

has been recently sanctioned in the case of the masters employed in all Government institutions, with a few exceptions. Although the Medical College is under the control of the Director of Public Instruction, no charges connected with this institution fall on the educational budget. The salaries of the Principal and major Professors, who are all officers holding various medical appointments, and the stipends of the Military Hospital apprentices appertain to Imperial services. The salaries of the minor Professors and all the other items belong to the medical branch of Provincial services.

795. FINANCIAL.—An Educational Building Fund was originally formed from the surplus balance of the Devastaunam funds. Under the orders of the Court of Directors this amount was set apart for educational buildings and was subsequently considerably augmented by a transfer of the unexpended portion of the annual grant of Rupees 50,000 given for native education from 1828-29 to 1854-55. A 4 per cent. treasury note was issued in the same year for Rupees 10,00,000, afterwards reduced in 1868 to Rupees 8,00,000. The interest upon this note, after meeting charges incurred in connection with educational buildings, was credited to the Educational Building Fund and continued to accumulate until July 1861, when the Secretary of State directed that no further additions should be made by the accumulation of interest, and that, whenever the building charges fell below the interest, the balance should be applied towards defraying general educational expenditure. Sums raised by private contributions and subscriptions for the construction of school-houses were credited to this fund. All charges on account of educational buildings were met from it until 31st March 1884 and divided into charges on account of original buildings and repairs of Government colleges and schools and building grants to aided colleges and schools. These charges of late years greatly exceeded the annual receipts from interest and local contributions, and it was necessary from time to time to divert considerable sums from capital. The Presidency College, the Senate House, and the Combaconam College have largely contributed to the depletion of this fund, which was reduced on the 31st March 1884 to Rupees 2,178-9-1. The fund was wound up at the close of the year, the balance having been credited to Provincial funds, from which all building charges are now met.

796. The undermentioned scale of school fees has been levied since the 1st January 1884 in schools connected with the educational department.[45] In any town in which a college or school supported solely from Provincial funds exists, having departments corresponding to those of any public college or school in the same town in which fees are levied at the rates fixed above, the fees in the college departments of the Government institution are levied at rates not less than 20 per

[45] SCALE OF FEES ENFORCED.

—	Government.	Other.	Fee.
	RS. A. P.	RS. A. P.	By the term, RS.
(a) In the College Department	......	......	25
(b) In the High School Department—			
In Government Schools	......	......	22
In Other Schools	......	......	18
First Instalment	9 0 0	7 0 0	
Second do.	6 0 0	5 0 0	
Third do.	4 0 0	3 0 0	
Fourth do.	3 0 0	3 0 0	
(c) In the Middle School Department—			
In Government Schools	......	......	12
In Other Schools	......	......	9
First Instalment	4 8 0	3 8 0	
Second do.	3 8 0	2 8 0	
Third do.	2 8 0	2 0 0	
Fourth do.	1 8 0	1 0 0	
(d) Primary Schools—			Monthly. RS. A. P.
Upper Primary	......	......	1 0 0
Lower	......	......	0 8 0
Preparatory Classes	......	......	0 4 0

cent. in excess of those sanctioned for the locality. In college department of the Presidency and Combaconam Colleges the excess rate is 25 per cent. Managers of aided colleges are permitted to levy the term fee in college departments by four instalments of Rupees 12, Rupees 8, Rupees 5 and Rupees 5, the first instalment being paid on the opening of the college, the second within sixty days from the opening, and the third and fourth at subsequent intervals of thirty days, so that the entire fee may be paid within the first four months of the term. An entrance fee equal to double the fee of the class is charged when a pupil is admitted or readmitted to a primary class. No other entrance fee is levied. The above scale and fees are not however applicable to schools for native girls, for European and Eurasian poor and other indigent classes, to practising schools attached to normal schools, to industrial and other special schools, and to primary schools aided on the results system. Mahomedan and Ooriyah pupils pay only half the above rates. Special favorable rates of fees may be sanctioned by Government for backward localities and backward and indigent classes of pupils. No school-fees are levied in the hill schools of Goomsoor and Chinna Kimedy and some of the other elementary schools maintained by Government for special classes. The rules relating to school-fees have been declared not to be in force in schools aided on the results or combined system, and in schools supported directly by Local Fund and Municipal Boards it is left to the Boards and Commissioners to decide whether any, and if so what, fees shall be levied. In Government institutions maintained from Provincial funds all school-fees are paid into the treasury and credited to Provincial services. School-fees now form an important contribution towards the cost of education. The table below [46] shows the receipts from this source in Government, quasi-Government, and private institutions for the ten years ended 31st March 1885. Comparing the fees with the attendance, it will be noticed that during the decade the attendance in Government institutions fell, but the fees rose by 22 per cent.; in schools under the management of District Boards and Municipalities and of committees under the control of Government the attendance rose by 82 and the fees by 343 per cent.; and in private schools the attendance rose by 51 and the fees by 81 per cent. The percentage of increase in the fees of private institutions appears here as comparatively low owing to the inclusion under this head of the numerous results schools charging nominal fees or no fees at all. If schools aided on the salary system alone are taken, these schools being the institutions affected by the Government restrictions in regard to fees, the increase in fees in private schools was over 100 per cent. In the next statement [47] are shown, for ten years, the total fee receipts in all institutions, as given in the last column of the last table compared with the total expenditure in the same institutions. The proportion between the two shows the percentage that the fees paid by pupils bear to the whole cost of their education. Owing to the successive additions to the rates of fee, the

[46] TABLE SHOWING SCHOOL-FEES FOR TEN YEARS.

Year.	Government institutions.		Institutions under the management of Local Fund Boards and Municipalities and of Committees under the control of Government.		Private institutions.		Total.	
	Attendance on 31st March.	School fees.	Attendance on 31st March.	School fees.	Attendance on 31st March.	School fees.	Attendance on 31st March.	School fees.
		RS.		RS.		RS.		RS.
1875-76 ...	11,100	1,22,552	26,808	30,001	246,572	5,53,167	284,480	7,05,720
1876-77 ...	10,317	1,22,422	33,009	36,431	244,622	5,45,237	287,948	7,04,090
1877-78 ...	10,993	1,22,068	26,903	30,160	217,913	4,69,747	255,809	6,21,975
1878-79 ...	11,279	1,33,921	29,688	34,189	196,871	4,80,193	237,838	6,48,303
1879-80 ...	11,304	1,32,810	39,765	40,318	217,310	5,18,599	268,379	6,91,727
1880-81 ...	11,668	1,42,488	39,548	40,804	276,592	6,40,022	327,808	8,23,314
1881-82 ...	12,141	1,47,576	43,585	47,349	337,957	7,50,580	393,683	9,45,505
1882-83 ...	11,936	1,62,299	48,522	58,626	385,866	8,22,687	446,324	10,43,612
1883-84 ...	10,297	1,77,040	48,225	86,826	389,264	8,93,763	447,786	11,57,629
1884-85 ...	8,574	1,50,001	48,816	1,33,065	373,461	10,00,074	430,851	12,83,140

proportion that the fee revenue bears to the total cost of education was greater in 1885 than in 1875. The fee receipts in the period rose by about 80 per cent., but the expenditure rose by 55 per cent. only. The next statement [48] deals with fee receipts in non-Government institutions and with grants-in-aid made to these and shows the proportion between what the pupils themselves pay and what is paid by the Government. In 1877-78 Rupees 100 paid in fees was aided by Rupees 121⅓; in 1878-79 Rupees 100 paid in fees was aided by Rupees 92½; in 1879-80 Rupees 100 paid in fees was aided by Rupees 77½; in 1880-81 Rupees 100 paid in fees was aided by nearly Rupees 69; in 1884-85 Rupees 100 paid in fees was aided by Rupees 72½. The next table [49] shows the average fee in the first and last years of the decade ending 31st March 1884 in the several classes of institutions.

[47] STATEMENT SHOWING THE PROPORTION PAID BY PUPILS IN ALL INSTITUTIONS OUT OF THE TOTAL COST OF EDUCATION FOR TEN YEARS.

Year.	Total fee receipts in all institutions (Government and non-Government).	Total expenditure on education in the same institutions.	Percentage of fees paid by pupils to the total cost of their education.
	RS.	RS.	
1875-76	7,05,720	21,18,074	33·3
1876-77	7,04,090	21,88,171	32·2
1877-78	6,21,975	21,12,419	29·4
1878-79	6,48,303	20,32,492	31·9
1879-80	6,91,727	21,11,667	32·7
1880-81	8,23,314	24,04,992	34·2
1881-82	9,45,505	28,44,563	33·2
1882-83	10,43,612	31,01,152	33·7
1883-84	11,57,628	31,81,029	36·4
1884-85	12,83,140	32,92,721	39·0

[48] STATEMENT SHOWING THE PROPORTION BETWEEN AMOUNT PAID BY PUPILS IN PRIVATE INSTITUTIONS AND THE AMOUNT CONTRIBUTED BY GOVERNMENT.

Year.	Fee receipts in private institutions.	Total grants-in-aid from all sources to private institutions.	Percentage of aggregate grant to aggregate fee receipts in private institutions.
	RS.	RS.	
1875-76	5,53,167	4,89,407	88·4
1876-77	5,45,237	5,55,840	101·1
1877-78	4,69,747	5,70,380	121·4
1878-79	4,80,193	4,44,654	92·5
1879-80	5,18,599	4,02,017	77·5
1880-81	6,40,022	4,40,682	68·8
1881-82	7,50,580	5,46,051	72·7
1882-83	8,22,687	6,70,265	81·5
1883-84	8,93,762	6,68,203	74·8
1884-85	10,00,074	7,25,838	72·5

[49] AVERAGE FEE PAID AT TWO PERIODS IN DIFFERENT CLASSES OF INSTITUTION.

Year.	Average fee according to the average number on the rolls.			
	Government schools.	Local Fund and Municipal schools and schools managed by committees under the control of Government.	Private schools. On the salary grant system.	Private schools. Other.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
1874-75	12 14 6	1 7 9	8 7 0	1 15 1
1883-84	20 2 4	2 10 0	10 4 1	2 1 1

797. The percentage statement [50] given below shows the proportionate amount spent from all sources on the different branches of education as shown by the figures of the latest available year. The next statement [51] shows the total expenditure on Government and private institutions as distributed between public and private funds according to the returns of the same year. The table shows, that is to say, how much is given on the whole by the State, and how much by the public. The fees collected in purely Government institutions and carried to credit in that year was Rupees 1,50,001; the net expenditure was therefore less by this amount than the sum shown below. The figures do not include expenditure on buildings.

798. LAW AND RULES.—There are no Acts in force regulating the working of the department. The City of Madras Municipal Act and the District Boards Acts of 1884 contain, among other subjects, provision for the encouragement of elementary education, whilst the District Municipalities Act provides for the regulation of education in some detail. The middle education of boys in the mofussil municipalities was transferred to these bodies from 1st April 1883 on the recommendation of the Local Self-Government Committee. The Grant-in-Aid Code contains rules regarding the nature and amount of aid to be given to private schools. At the beginning of each calendar year, according to the English practice, a revised edition of the code is published in the Fort St. George *Gazette.*

799. MISCELLANEOUS GENERAL STATISTICS.—The statement at foot [52] shows the advance in the number of schools and scholars on the whole and for each principal section of the population for the ten years between 1875 and 1885. The number of schools rose by over 46 per cent. during the period. Attendance increased during the decade by 51 per cent. The Hindoo and Native Christian scholars

[50] PERCENTAGE AMOUNTS SPENT ON EDUCATION.

General Instruction.	
Superintendence	8·64
Superior instruction	8·76
Secondary do.	34·45
Primary do.	31·52
Miscellaneous	7·41

Special Instruction.	
Superior instruction in Law, Medicine, and Civil Engineering	1·33
Secondary instruction in professional colleges and technical schools	3·78
Normal schools	3·41
Scholarships	·70

[51] TOTAL EXPENDITURE AND ITS SOURCES.

Source of expenditure.	Government institutions.	Private. institutions.
	RS.	RS.
Provincial Funds	4,81,879	3,32,672
Local Funds	2,45,481	2,77,794
Municipal Funds	52,797	1,02,277
Subscriptions, donations, &c.	4,01,346	16,55,630
Total ...	11,81,503	23,68,373

[52] STATEMENT SHOWING INCREASE IN SCHOOLS DURING TEN YEARS.

Year.	Schools (aided and unaided).	Scholars.					
		Europeans and Eurasians.	Native Christians.	Hindoos.	Mahomedans.	Others.	Total.
1875-76	10,236	5,526	21,777	232,366	21,806	3,005	284,480
1876-77	10,121	4,724	21,469	237,408	20,653	3,694	287,948
1877-78	9,143	4,880	22,387	207,417	18,008	3,117	255,809
1878-79	8,916	4,916	23,321	191,115	16,576	1,910	237,838
1879-80	10,176	5,317	27,274	214,811	18,777	2,200	268,379
1880-81	12,406	5,730	29,080	268,139	22,075	2,784	327,808
1881-82	14,057	6,034	32,478	325,724	25,565	3,882	393,683
1882-83	16,590	6,136	38,448	367,055	28,815	5,870	446,324
1883-84	16,139	6,339	36,575	371,445	31,395	2,032	447,786
1884-85	15,587	6,599	36,157	355,674	29,954	2,467	430,851

rose by 51 and 66 per cent. during the period, and the Mahomedan scholars rose by 37 per cent. The fluctuation under "Others" is nominal, the Pariah class having been treated as Hindoos in the returns of certain years. The next two statements [53 & 54] show the salary-grants paid by Government to institutions under private management and the results grants paid by different bodies for the ten years between 1874 and 1884.

[53] STATEMENT SHOWING SALARY GRANTS PAID DURING TEN YEARS.

Year.	Total.	Year.	Total.
	RS.		RS.
1874-75	2,04,521	1879-80	1,91,121
1875-76	2,07,068	1880-81	1,53,705
1876-77	2,05,973	1881-82	1,50,908
1877-78	2,11,357	1882-83	1,57,939
1878-79	2,13,080	1883-84	1,67,378

[54] STATEMENT SHOWING THE PROGRESS OF RESULTS GRANTS DURING TEN YEARS.

Year.	Amount paid				Year.	Amount paid			
	From Provincial funds.	From Municipal funds.	From Local funds.	Total.		From Provincial funds.	From Municipal funds.	From Local funds.	Total.
	RS.	RS.	RS.	RS.		RS.	RS.	RS.	RS.
1874-75 ...	48,397	26,221	1,23,303	1,97,921	1879-80 ...	56,357	21,104	99,297	1,76,758
1875-76 ...	53,820	33,009	1,70,469	2,57,298	1880-81 ...	67,827	32,109	1,59,430	2,59,366
1876-77 ...	69,881	33,294	2,04,743	3,07,918	1881-82 ...	81,435	42,871	2,37,027	3,61,333
1877-78 ...	67,329	34,427	1,78,184	2,79,940	1882-83 ...	1,53,079	54,020	2,87,523	4,94,622
1878-79 ...	50,078	20,241	1,04,538	1,74,857	1883-84 ...	1,58,945	47,227	2,38,675	4,44,847

CHAPTER IX.

MISCELLANEOUS.

TIME, MONEY, WEIGHTS, MEASURES, &c.

800. TIME.—The English Government of this Presidency use for purposes of ordinary chronology the calendar year beginning 1st January, for purposes of report to England the official year beginning 1st April, and for purposes of revenue collection the fusly or harvest year beginning 1st July. The first two adopt the usual European sub-divisions. The fusly is divided only by the periods of instalment of revenue due. *No native measurement of time, the fusly excepted, is recognized by the Government. For legal purposes* native dates of documents are translated into the Gregorian style, and periods of limitation are calculated according to that style. This latter provision is specially enacted by the Indian Limitation Act, India Act No. XV of 1877, section 25. The native measurements of time however are of the utmost importance to the population themselves, forming the basis of all their religious and most of their civil arrangements. The subject, which is extensive, is sketched in the foot-note.[1] Current chronology is practically regulated among

[1] SKETCH ACCOUNT OF THE ERAS AND CALENDARS IN USE IN SOUTHERN INDIA.—*First Principles of Computation.*—It would be hazardous to give any detailed opinion as to the relative antiquity of the different component parts of the calendar system of Southern India; but some general observations are possible as to the natural origin of such conceptions, and one or two facts appear from the circumstances of the people themselves. The measure of time which is the first to be observed by mankind is the period of daylight, or interval between sunrise and sunset. The oldest Dravidian word for a day is pagal or daylight. The words naul indicating a solar day and night, and kizhamay indicating a fraction of a week, are of later origin. The period of daylight is variable in length even at the equator. And when any fixed point is taken in it the corresponding position of the sun will differ from day to day. That is to say, if there were a time-piece and a sundial the two would not proceed together. As a consequence the sub-division into fixed hours of equal length is unknown. The time of day is indicated by the height of the sun in the sky. This is still the habit among the agriculturists of Southern India. There is a Dravidian word ooroomam for noon, but none for any further sub-divisions of the day. The word for the sixtieth part of a day and night, or 24 English minutes, is in Tamul nauligay which is taken from the Sanscrit naudica. Similarly vinaudy or the 60th part of a nauligay. The terms moohoortam "48 minutes" and nimisham "twinkling of an eye" are pure Sanscrit. The phenomenon which is the second to be observed by man is the return of the moon from new to new, making the lunar month called in science synodic. This, reckoning still by the number of sunrises and so with an occasional variation in the number of days to the month, is the second natural measure of time in order of origin. The civil lunar month varies between 29 and 30 days. This month prevailed in Europe until Julius Cæsar in 46 B.C. substituted a solar year divided into artificial months "the Julian calendar." There is a Dravidian word tingal for the moon or natural month. The fishermen of this Presidency still calculate by months alone; being unobservant, at any rate as far as appears from their computations, of years or seasons. The same is the case with many hill-tribes. An agricultural population would very early notice the recurrence of the seasons, and hence the yearly position of the sun. This is the third step in computing time. The most primitive way of constructing a year is to put together 12 lunar months. This however being less than the solar year by 11 or 12 days would necessitate constant intercalations to bring the seasons into correspondence. The date of the origin of solar computation in India is unknown. When that was done, the civil year would still be reckoned by so many sunrises, and some intercalations would still be necessary. The most accurate solar year, or the return of the sun from a star to a star amounts to a mean year (allowing for nutation, which is the only known disturbing element) of 365 days 6 hours 9 minutes 9·6 seconds. It is called in Sanscrit Madhyama sowra mauna mean solar reckoning. There is an old Dravidian name Aundu for the year, but it is not known whether it was ever in use except for the purposes of the calendar. The different methods of applying these yearly and other computations to the affairs of history or civil occupation will be described in the succeeding paragraphs. (2) *The Kaliyoog.*—According to the old Hindoo theory a day and a night of Brahma and the other gods consist of 1,000 mahayoogs or great yoogs, each of these periods being 4,320,000 years. It is not certain whether these figures are wholly chimerical, or whether they are based on any astronomical fact. A mahayoog is divisible under this system into 4 mundane yoogs, diminishing in length in the arithmetical progression 4, 3, 2, 1. The connection between these figures and the total sum is apparent. Each yoog is preceded by a period equal to $\frac{1}{10}$th of itself, called the sandhyah or twilight; and succeeded by a similar period called sandhyaumsha or part of twilight. The three first yoogs of the present universe are past, and mankind now live in the fourth. The Krita "achieved" or Satya "truth" lasted with twilights 1,728,000 years. It is the equivalent of the golden age of Ovid. The Tretah (tra, to preserve) lasted similarly 1,296,000 years. It is the equivalent of the classical silver age. The Dwapara (dwa, two, para, after) lasted similarly 864,000 years, It is the equivalent of the brazen age. The Kali "ace" began with the equinox in March 3102 B.C., and will last similarly 432,000 years. It is the equivalent of the iron age. The names of the yoogs are said to be connected with the marks on dice. The era of the Kaliyoog has at no time been expressly recognized in Southern India. But it has this in common with the Tamul era next to be described, that both are strictly solar-siderial; and in fact the latter is merely the former with a new starting-point. At first the Kaliyoog was affected by the precession of the equinoxes, causing a variation of one day in 60 years. But this was corrected in the year 969 A.D.,

the natives of Southern India by the name-years of the Jovian cycle, an institution which in its first origin appears to be earlier than the Aryan colonization. The division of the day is into four day and four night watches, making in all 60 Indian

when a fixed solar zodiac was introduced. The year of Kaliyoog begins now always with the zodiacal sign Mesha "Aries" or about the 12th April. Thus the Sooryasiddhaunta or system of Kaliyoog is understood in the greater part of India. In the southernmost part of the peninsula the original system is maintained under the name of Aryasiddhaunta retaining the error for precession. It is however used only by certain Malabar astrologers. The effect of the Kaliyoog year on the civil year which reckons by sunrises, is to produce certain variations in the length of the months and to bring about a bissextile or leap year of 366 days about once in every 4 years. All this is provided in the Hindoo calendar. To find the year of the Kaliyoog add 3101 to the Christian year A.D. (3) *The Shalivauhana Saca and Ordinary Tamul Calendar System.*—The era adopted by the Tamulians is that called by this name, or simply Saca. Shalivauhana "carried on the saul tree" was a Rajpoot king living at Pratishtauna on the Godavery in the first century of the Christian era. Saca is said to represent an Indo-Scythian or Tartar king reigning near the Indus over the people called Sacas by the classics, and defeated by Shalivauhana. The name of the era would thus indicate a compound designation. It seems more natural to take Saca as an original term for era. The Shalivauhana Saca dates from Monday the 14th March A.D. 78, year 3179 of the Kaliyoog. It is first found mentioned by Varaha Mihira, the Hindoo astronomer of the sixth century; and was probably at first only a local computation, afterwards advanced by the authority of that writer into a popular and prevalent era. It appears to have been incorporated into the religious system of the Digambara "unclad" Jains of Southern India. (4) It has been stated above that the Saca is only a derivative of the ancient Kaliyoog. It uses the same astronomical starting-point and follows with one or two exceptions all its divisions. The first division is into six seasons and each season is again divided into two months, artificial, not lunar. Here follows a table showing these with both Sanscrit and Tamul names. Some of the latter are pure Dravidian. It is important also to observe that the whole Tamul year, including seasons and months, is shifted one month later than the Sanscrit year. This is perhaps due to the greater propinquity to the equator of the Tamuls, but in any case shows some independence on the part of the indigenous population. The civil Tamul year begins about the 12th April, being about 30 days later than the Sanscrit:—

Sanscrit names of seasons.	Names of months.		Periods of English year approximately corresponding to the Tamul months.
	Sanscrit.	Tamul.	
Vasanta (shining) ...	Cheitra	Chittray	April 12th to May 12th.
	Vaishaukha	Veiyausy	May 12th to June 12th.
Greeshma (hot)	Jyeshta	Auny	June 12th to July 12th.
	Ashaudha	Audy	July 12th to August 12th.
Varsha (rain)	Shrauvana	Auvany	August 12th to September 12th.
	Bhaudrapada	Poorataushy	September 12th to October 12th.
Sharad (sultry)	Ashwina	Alpisy	October 12th to November 12th.
	Kaurttika	Cartigay	November 12th to December 12th.
Hemanta (cold)	Margasheersha	Margaly	December 12th to January 12th.
	Pooshya	Tye	January 12th to February 12th.
Shishira (dewy)	Maugha	Mausy	February 12th to March 12th.
	Phaulgoona	Pungoony	March 12th to April 12th.

(5) The number of days in each month given above is approximate, not being always the same in every year. The week or collection of seven days, sunrise to sunrise, is as follows in Sanscrit and Tamul:—

English names of days of week.	Sanscrit adding 'Vaura.'	Tamul adding 'Kizhamay.'	Meaning of the Indian terms.
Sunday	Ravy or Aditya	Nyayir	Sun.
Monday	Soma	Tingal	Moon.
Tuesday	Mangala	Shevvye	Mars.
Wednesday	Boodha	Boodhan	Mercury.
Thursday	Gooroo or Brihaspaty ...	Viyauzhan	Jupiter.
Friday	Shookra	Velly	Venus.
Saturday	Shany	Shany	Saturn.

The Tamul names for all the days of the week are indigenous and Dravidian, except in the case of the planets Mercury and Saturn. These have the appearance of being derived from the Sanscrit. It is possible however that the converse is the case. The most recent researches show that the method of regulating days of the week by the names of planets was originally a Turanian not an Aryan conception. The way in which these particular names were assigned to the different days is as follows. Taking the planets, &c., on the geocentric system, they appear in this order; Saturn, Jupiter, Mars, Sun, Venus, Mercury, Moon. According to astrology each hour is ruled by a planet. Take then the first hour of Saturday as ruled by Saturn, and let the others follow successive hours in the order just shown. Then with the successive division of the days of 24 hours by this series of 7 planets, it will be found that the first hour of the other days will fall to the other planets in the order shown in the table. (6) The sub-divisions of the day under the solar system are according to the Brahmin astronomers of three classes; according as the day taken is from sunrise to sunrise, while the sun describes one degree of the ecliptic, or from rise to rise of one point of the ecliptic itself. The first-named or natural day is called sauvana, and its divisions are 60 ghata of 60 vinaudikah of 60 vipala. This day is constantly varying. The solar day proper is called sowra, and its divisions are 60 danda or kalah of 60 vikala. This day is longer or shorter as the sun is near the apogee or perigee. The ecliptic or true siderial day is called nakshatra, and its divisions are 60 gharee or danda, of 60 vighatikah = 24 English seconds each, of 60 vipala ·04 English seconds each or 6 prauna "respiration" of 60 alipala of 60 kaushta of 60 nimisha of 60 lava of 60 kshana. Whether these minute sub-divisions are of any service must be determined by astronomers. It will be noticed that above this list 60 days, nakshatra or dina make a ritoo or season; so that the computation by 60 is complete. From the remarks hereafter made, it will appear that this computation is probably a primitive Tartaric conception developed by the Aryans. In the Tamul country, and especially in the extreme south, the variation in the length of daylight is much less than in the north. In ordinary reckoning this is neglected. The daylight is divided into 4 jaumam or watches of 3 English hours or 7½ Indian hours nauligay each. The same for the night, but this is less frequent in civil life. Each Indian hour is calculated by an instrument called nauligay vattil, where a small vessel with holes in the bottom sinks in a larger vessel filled with water in that space of time. This is a variety from the clepsydra of the classics.

hours. It is possible that there is a connection between this hour-division itself and the Jovian cycle. The greater part of the population still regard the daylight only, or the period from the first appearance of objects close at hand in the morning to

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In each nauligay are 60 vinaudy. The Tamuls do not go lower than the vinaudy in tabular reckoning. (7) *Grihaparivritty Cycle.*—There is a Tamul cycle of 90 years, used for designating by names 90 recurring years of the Kaliyoog, beginning B.C. 24 (year 3078 of the Kaliyoog), to which the Brahmin astronomers of Madura and the south have given this title. It is said to be of ancient origin. It is based on the times of revolution of the sun and five planets. It has little practical application at the present day. (8) *Collam Aundoo or Era of Parashoorama, or Malayalam Era.*—This prevails in Malabar and Travancore. It is divided into cycles of 1,000 years. The first cycle ended 176 B.C., the second 825 A.D., the third 1825 A.D. The year begins on the 15th September, except in leap-year. It follows the Kaliyoog system. (9) *The Luni-solar System.*—Opposed to the Tamul solar-siderial system, which agrees with the European, is another highly complicated system which takes both lunar and solar motions for its elements, and is exclusively the result of the Indo-Aryan critical faculty, having no parallel in any other part of the world. In the Teloogoo country, and in countries further north beyond the Presidency, this luni-solar system furnishes an era called the Vicramaditya. And there have been one or two similar local eras. Even however where it has not succeeded in ruling the chronology, as for instance in the Tamul country, it has super-imposed its peculiarities for religious and ceremonial purposes on the solar systems. The great difficulties caused by this latter fact are what constitute the intricacies of the Indian calendars. The system is called the Chandramauna. The year under this consists of 12 lunar months, with an intercalary month once in about 3 years. The year begins at the true instant of conjunction of the sun and moon, that is on the new moon which immediately precedes the solar year. The day of conjunction is called 'amavausya.' In Southern India the series of months begin with this amavausya. In Northern India a different method prevails, and the system is still more complicated. From the year thus arranged together with details of the solar system arises the composite punchaungam or Brahminical calendar, which may now be explained. (10) *The Brahminical Calendar deduced therefrom.*—The punchaungam "five divisions" comprises the vaura or solar day from sunrise to sunrise, the tithy or lunar day sub-dividing the waxing and waning of the moon, the nakshatra or constellation for the day, the yoga or sum of the longitudes of sun and moon, and the karana or bi-section of the tithy. For the performance of ceremonies a Brahmin, and in a less degree other Hindoos, must follow each of these heads. The calculation of these measures of time is made by a few astronomers who have received the knowledge from tradition. The exposition of the punchaungam is undertaken by a class called Joshies. (11) *Ditto, the Vaura.*—The vaura has been explained under the head of the Kaliyoog. For astrological purposes, it is sub-divided into 24 horah. The idea and title were borrowed by Varaha Mihira from the Greek, but he added that each horah should be ruled by a planet. The sub-division by sixties has already been explained. In Hindoo astrology the vauras answering to Tuesday and Saturday are unlucky days, and that answering to Sunday partially so. The Wednesday vaura is unlucky when Mercury is in the same constellation with either Mars or Saturn. These astrological points all arise out of the planetary influences. (12) *Ditto, the Tithy.*—Tithy cannot necessarily correspond with vaura. It begins at any moment of the solar day. It is $\frac{1}{30}$th part of the moon's synodical month, and varies with her motion from the sun. It ranges from 66 to 54 Indian hours. The tithies run for a fortnight only. The fortnight from new to full is called bright shooddha, shoocla or brightening; that from full to new is called dark bahoola, krishna, vadya or darkening. The following table shows the 30 tithies. The names after "new moon" and "full moon" are mere Sanscrit words for "first," "second," &c. The names of the deities to whom they are more especially sacred are added :—

Bright fortnight.

Amavausya, new moon	9-10, Pitrigaloo, orancestors.
1. Paudyamy or Pratamah.	11-1, Agny.
2. Bidige or Dwiteeyah	2-3, Brahma.
3. Tadige or Triteeyah	4-5, Parvaty.
4. Chowty or Chatoortee	6-7, Vigneshwara.
5. Panchamee	1-2, Adishesha.
6. Shashtee	3-4, Comarasawmy.
7. Saptamee	5-6, Soorya.
8. Ashtamy	7-1, Shiva.
9. Navamee	2-3, The 8 Vasoos.
10. Dashamee	4-5, The 8 elephants.
11. Yecaudashee	6-7, Yaman.
12. Dwaudashee	1-2, Vishnoo.
13. Trayodashee	3-4, Manmata.
14. Chatoordashee	5-6, Kalee.

Dark fortnight.

Poornimah, full moon	7-1, Chandra.	
1. Paudyamy or Pratamah	2-3	(Same gods as bright fortnight).
2. Bidige or Dwiteeyah	4-5	
3. Tadige or Triteeyah	6-7	
4. Chowty or Chatoortee	1-2	
5. Panchamee	3-4	
6. Shashtee	5-6	
7. Saptamee	7-1	
8. Ashtamy	2-3	
9. Navamee	4-5	
10. Dashamee	6-7	
11. Yecaudashee	1-2	
12. Dwaudashee	3-4	
13. Trayodashee	5-6	
14. Chatoordashee	7-8	

The figures opposite each tithy show the proper karanas for such. It will be observed that the names of the tithies for the dark and bright fortnight are the same, yet the karanas differ. Karana will be explained later on. The fifteen days of each fortnight are divided for astrological purposes into five classes, having three days in each, thus:—Nandy contains 1st, 6th, and 11th, indifferent; Bhadrah contains 2nd, 7th, and 12th, good; Jayah contains 3rd, 8th, and 13th, good; Riktah contains 4th, 9th, and 14th, very bad; Poornah contains 5th, 10th, and 15th, good. During the riktah tithies no good work, such as marrying a wife, building a house, &c., can be commenced. A knowledge of the tithies is absolutely necessary to a Hindoo, for on them depends a proper performance of the funeral ceremonies to which he attaches so much importance. (13) *Ditto, the Nakshatra.*—The nakshatras are 27 in number, and are the constellations through which the moon in her monthly course passes. Great importance is attached to them in all astrological calculations. They are divided into male, female, and neuter; good, bad, and indifferent; and those which look upwards, those which look downwards, and those which look straightforward. Each nakshatra is divided into four parts called pauda, and $2\frac{1}{4}$ nakshatras equal a irausy or sign of the zodiac. The nakshatras succeed each other throughout the month in the following order, and are each sacred to a particular god :—

1. Ashvinee, whose god is	Ashvinee Devatah.
2. Bharanee or Andagan	Yaman.
3. Krittikah or Agneya	Agny.
4. Rohinee or Brahmee	Brahma.
5. Mrigashiras	Moon.
6. Ardrah or Raudrah	Shiva.
7. Poonarvasoo	Adity.
8. Pooshya or Tishya	Jupiter.
9. Ashlesha or Sharppam	Serpents.
10. Maghah or Pitryah	Pitrigaloo.
11. Poorvaphalgoonee	Aryamah
12. Oottaraphalgoonee	Bhaga.
13. Hastah or Arkabhah	Sun.
14. Chitrah	Indra.
15. Swauty whose god is	Vayoo.
16. Vishaukhah	Indragny.
17. Anooraudhah	Mitra.
18. Jyeshtah	Indra.
19. Moola or Nirrity	Rakshas.
20. Poorvashaudhah	Oodaka water.
21. Oottarashaudhah	Vishwedevah.
22. Shravana	Vishnoo.
23. Dhanishtah or Shravishtah.	The 8 Vasoos.
24. Shatabhishah or Shatataurakah.	Varoonan.
25. Poorvabhaudrapadah	Ajachcorana.
26. Oottarabhaudrapadah	Ahirboodhnyah.
27. Revatee or Powshna	Pooshan.

their obscuration in the evening; and reckon no sub-divisions except noon and different apparent altitudes of the sun. For religious purposes the upper classes adopt the chronology of the Brahmins, whose system is based on the combined motions of the sun and moon; a system without any parallel in other countries in past or present times. Archæologists in Southern India are under the necessity of considering all the methods of chronology mentioned in the note, and some others; owing to the diversity of dynastic rules which have prevailed successively and simultaneously in this country.

In every nakshatra there is a time called tyaujyayoga, which lasts for $3\frac{3}{4}$ or 4 ghaligeys (there is a dispute as to the actual length), and while it lasts nothing can be done, no work commenced. The tyaujyayoga comes sometimes by day, sometimes by night. The hour of its commencement is always given in the almanac. (14) *Ditto, the Yogas.*—These are 27 in number, and like the nakshatras, follow each other in regular order, thus:—Vishkambha, Preety, Ayushmat, Sowbhaugya, Shobhana, Atiganda, Sookarman, Dhrity, Shoola, Ganda, Vriddhy, Dhroova, Vyaughauta, Harshana, Vajra, Siddhy, Vyatipauta, Vareeyas, Parigha, Shiva, Siddhy, Sandhya, Shoobha, Shookla, Brahman, Indra, Veidhrity. The yoga is nothing else than a mode of indicating the sum of the longitudes of the sun and moon. The rule for its computation, as given in the Soorya Siddhaunta, Bhausvatee, and Graha Laughava, directs that the longitude of the sun be added to the longitude of the moon, and the sum reduced to minutes, is to be divided by 800 (the number of minutes in 13° 20′): the quotient exhibts the elapsed yogas, counted from Vishkambha. It follows, therefore, that the yogas are 27 divisions of 360° of a great circle measured on the ecliptic. But if they be represented on a circle, it must be a movable one in the plane of the ecliptic. A more practical way for finding the proper yoga of the day is this. Find the nakshatra in which the moon is. This is the same as that for the day. Beginning with Shravana the 22nd nakshatra, find what the number of this nakshatra is. (α) Find the nakshatra in which the sun is on the same day. This will be found from the sign of the zodiac. Then, commencing with pooshya or 8th nakshatra, find what the number of this nakshatra is, or (β). Add α and β: the sum gives the number of the yoga for the day. If the result $\alpha + \beta$ is more than 27, subtract 27 or the total number of yogas, and the result gives the number of the yoga for the day. The length of a yoga varies from a maximum of 64 *ghaligeys to a minimum of 54 ghaligeys*, and does not necessarily agree with the tithy of the day. Yogas are divided into good, bad, and indifferent. (15) *Ditto, the Karana.*—Karanas are eleven in number, and divided into variable and invariable:—

Variable.		Invariable.	
1. Vava.	5. Gara.	8. Shakoony.	10. Nauga.
2. Vaulava.	6. Banij.	9. Chatooshpada.	11. Kintooghna.
3. Kowlava.	7. Vishy.		
4. Teitila.			

They answer successively to half a tithy or lunar day, Kintooghna being always assigned to the first half of the first tithy, and the variable karanas succeeding each other regularly through eight repetitions. They are followed by the three remaining invariable karanas, which conclude the month—Chatooshpada and Nauga appertaining to amavausya or the new moon, and Shakoony being appropriated to the latter half of the preceding tithy. (16) *The Vicramaditya era.*—This has been mentioned above as the principal era established by the exponents of the luni-solar system. It obtains among the Northern Teloogoos of this Presidency, and is the characteristic era of the Swetambara or white-robed Jains of the north. In the north of India it is called "Samvat," and hence the common word "Samvatsaram," used even in this Presidency for a year. It began in the year 57 B.C. The year opens slightly before the solar year for the reason given above in describing the principles of the luni-solar year. (17) *The Cycle of Vrihaspaty.*—This Brihaspatichakra is a cycle of 60 years based originally on the revolutions of the planet Jupiter. Jupiter revolves in the heavens once in about 12 solar years, and this multiplied by 5 gives 60. The system is common to all nations of the extreme east, and is rather a Tartaric than an Aryan notion. The Tamuls and the Tibetans equally reckon their age in domestic affairs by periods of 12 years. It is only in the adaptation of this cycle to the Brahminical system that the original factor of 12 years is overlooked. In that system there are 60 distinct names for each year of the 60-year cycle. Whatever its meaning at first, in practice at the present day the Tamuls give the cycle names to 60 of their solar years, and the Teloogoos to 60 of their luni-solar years. In formal dates it is and always has been the custom to add the cycle year-name to the era year-number; and in common usage the year-number is omitted altogether. The names will be seen in the table which concludes this note. They are all from the Sanscrit. In Bengal the cycle is 11 years in advance of Madras. (18) *Tooloo season year.*—A Tooloo calendar exists on the west coast which has Dravidian terms for 10 out of 12 names of the months. These terms represent the crops harvested in those months. The arrangement of the months agrees as at present observed with the luni-solar system. The names of the twelve months are as follows:—Pagg, Besha, Kartail, Auty, Sona, Nirnaula, Bontail, Jaurde, Peraurde, Pooyintail, Mayi, Sooggy. Of these Besha and Auty alone are from the Sanscrit. It is probable that the Dravidians had a seasonal calendar before the Aryan invasion. Though the Tamuls have later on adopted the solar system, it may be conjectured that the earliest Dravidian calendar was wholly lunar. (19) *Years of reigns.*—In inscriptions dates are frequently found bearing no other year date than the year of the reign of a particular king. (20) *Intercalations, &c.*—Mention has been made above incidentally only of the modifications necessary to reconcile astronomical and naturally observed periods. But in religious and ceremonial matters they exercise an important influence, even leading sometimes to sectarian dispute. They take the form not only of intercalating periods as in Europe, but also of expunging them. They are particularly noticeable in the Brahminical luni-solar system. An intercalated period is called adhika, and in former days no legal or state document could be executed during its currency. This is not the case at the present day however, except among the strictest Brahmins. The solar calendar furnishes scarcely any date-festival; the lunar calendar nearly all of them. But this does not touch the question of festivals special to temples and localities, which is the more indigenous method. (21) *The harvest era called fusly.*—The fusly harvest era was originally instituted by Acbar, who desiring to have a uniform year for revenue purposes throughout his empire arranged a system under which the first year of his reign (1556 A.D.) should take the number of the Mahomedan Hijra, and proceed from that as a new starting-point. This was to be applied to all systems then existing. It does not appear whether it was understood that the synchronism could be only temporary. Even if all the other eras were regarded as mutually compatible, they could none of them long agree with the Hijra, which is not a luni-solar, but an absolute lunar system. The Vicramaditya or Samvat era of Bengal of that day gave 1612 as the year, the Hijra era 963. The Samvat year accordingly became 963, and the new era was named fusly. It loses more than three years in a century as compared with the figures of the Hijra, and is now 11 years behind the present Hijra. Nor has it in any way superseded the ordinary Samvat reckoning, which still continues. What has just been described is the Bengal fusly. The arrangement did not take effect in the Deccan or Carnatic until nearly a century later under Acbar's grandson Shah Jehaun. This emperor after bringing his wars in the Mahratta country to a conclusion in 1636, took steps for settling the country and introducing the revenue system of Todar Mull, his grandfather's celebrated minister. With the survey and settlement came naturally the revenue year. It was dated from the year 1831 A.D., or Hijra 1247 which latter number it took. The Hijra however had by that time advanced nearly three years on the first fusly. Consequently the new fusly bore a figure higher by three than the old. This is still the case. The Madras fusly is three years numerically in advance of the Bengal fusly. Seasonally the Tamul fusly or husbandman's year (called in the north 'mrigsaul'), begins with the end

801. MONEY.—The sums of money recognized by the Government at the present day in this Presidency for purposes of account are represented by fractions or multiples of the Government rupee (the standard unit of all money transactions in India), in accordance with the following table :—12 pies make 1 anna, 16 annas make 1 rupee, 100 thousand rupees make one lakh of rupees, 100 lakhs or 10 millions of rupees make one crore of rupees. The various sub-divisions or fractions of a rupee represented by independent coins in silver or copper are shown below[2] with their respective values, weights, and degrees of fineness or purity as

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of Veiyausy and beginning of Audy, or about the 12th June; when the fields begin to be sown. Astronomically it begins at the same time, being merely the postponement by two Tamul months of the solar-siderial year. The Madras Government fixed its commencement one month later, on 12th July, but from 1855 the date has been changed to 1st July. There is nothing to prevent the Tamul months being quoted along with the fusly, and formerly this was done in the titles to regulations and in other state documents. But at present the fusly is only used for the revenue demands and it has no divisions practically other than those of the periodic kists or collections. The khareef of the north is the first half of the fusly, and the rubbee is the second half; these terms are not used in the Madras Presidency, where the period of the crops and harvests is less precise. (22) *The Mahomedan Hijrah era.*—This dates from the flight of Mahomed to Medina, which took place in the night of Thursday, the 15th July, A.D. 622. The era commences on the following day, viz., the 16th July. Many chronologists have computed this era from the 15th of July; but it appears that in most ancient times the 16th was the first day of the era, and now there can be no question that such is the practice of Mahomedans. The year is purely lunar, consisting of twelve months; each month commencing with the appearance of the new moon. It is obvious that by such an arrangement every year will begin much earlier in the season than the preceding; being now in summer and in the course of sixteen years in the winter. It must also be remarked that, as the Mahomedans begin each month with the appearance of the new moon, a few cloudy days may retard the commencement of a month, making the preceding month longer than usual. This in fact is the case, and two parts of the same country will sometimes differ a day in consequence. However the clear skies of those countries where original Islamism prevails, rarely occasion much inconvenience on this head. In chronology and history, as well as in all documents, the Mahomedans use lunar months of thirty and twenty-nine days alternately, making the year thus to consist of 354 days: eleven times in thirty years, one day is added to the last month, making 355 days in that year. Consequently, the average length of a year is taken at $354\frac{11}{30}$ days, the twelfth of which is $29\frac{191}{360}$, differing from the true lunation very little more than three seconds, which will not amount to a day in less than 2,260 years; a degree of exactness which could not have been attained without long continued observations. An intercalary year of 355 days occurs on the second, fifth, seventh, tenth, thirteenth, fifteenth, eighteenth, twenty-first, twenty-fourth, twenty-sixth, and twenty-ninth years of every thirty years. It is evident however that between the intercalations the years do not correspond with any seasons. Any year being given, to know whether it be intercalary or not, divide by thirty; and if either of the above numbers remain, the year will be one of 355 days. The names of the months, as used by the Mahomedans, with the length of each, are as follows:—

Moharram	30	Rajab	30
Safar	29	Shabaun	29
Rabiah I	30	Ramzan	30
Rabiah II	29	Shawaul	29
Jomaudy I	30	Zil kauz	29
Jomaudy II	29	Zil hauj	30

The Mahomedans have weeks of seven days, named as follows:—

Days.	In Persia.	In India.
Sunday.	Yakshamba.	Etwar.
Monday.	Dooshamba.	Peer.
Tuesday.	Sishamba.	Mangal.
Wednesday.	Charshamba.	Boodh.
Thursday.	Panjshamba.	Joomeraut.
Friday.	Jooma or Audina.	Jooma.
Saturday.	Shamba or Hafta.	Saneechar.

(23) *Table.*—The table in Vol. II, App. XXXVI, exhibits the correspondence of the Christian, Cyclic, Kaliyoog, Saca, Quilon, Vicramaditya, Fusly, and Hijrah years, for the period between 1840 A.D. and the end of the present century; or a period sufficient to show one of the Jovian cycles of Vrihaspaty in every-day use among the Dravidians of this Presidency. The columns are taken in the order of the frequency of their ordinary use.

[2] SILVER AND COPPER COINS, VALUE, WEIGHT, AND FINENESS.

—	Weight.	Pure silver.	Alloy.
Silver coins.	GRAINS.	GRAINS.	GRAINS.
A Government rupee equivalent to 16 annas	180	165	15
A half-rupee or an eight-anna piece	90	$82\frac{1}{2}$	$7\frac{1}{2}$
A quarter-rupee or a four-anna piece	45	$41\frac{1}{4}$	$3\frac{3}{4}$
An eighth of a rupee or a two-anna piece	$22\frac{1}{2}$	$20\frac{5}{8}$	$1\frac{7}{8}$
Copper coins.			
A half-anna or double pice equal to 6 pies or $\frac{1}{32}$ of a rupee	200	...	...
A quarter-anna or single pice equal to 3 pies or $\frac{1}{64}$ of a rupee	100	...	...
An eighth of an anna or half pice equal to $1\frac{1}{2}$ pies or $\frac{1}{128}$ of a rupee	50	...	...
A pie or $\frac{1}{12}$ of an anna or $\frac{1}{3}$ pice equal to $\frac{1}{192}$ of a rupee.	$33\frac{1}{3}$	...	...

compared with the rupee. There are at the present day no separate coins in silver or copper representing the single anna, apparently because a coin of the former metal would be too small and one of the latter too large for ordinary use. The use of the vernacular term 'peisah' or the corresponding English word 'pice' for a quarter-anna is discouraged as much as possible, the term being liable to be confounded with the Anglicized word 'pies' the plural of pie. Ninety-rupees' worth of pies weigh 576,000 grains Troy, or $82\frac{2}{7}$ lb. Avoirdupois. A lakh of full-weight rupees weighs net $31\frac{1}{4}$ maunds. Copper coin of the nominal value of Rupees $2\frac{1}{4}$ weighs 1 seer. The mints are required to coin on demand the third mohur, the two-third mohur, the mohur, and the double mohur of the weight and fineness shown below.[3] No gold coin is legal tender, but mohurs are accepted at Government treasuries in payment of Government dues provided they have not lost above one part in five hundred of their weight. So are also sovereigns and half sovereigns (of the Royal Mints of England and Australia) which are accepted at a rate of Rupees 10-4-0 and 5-2-0 respectively provided they do not weigh less than $122\frac{3}{4}$ and $61\frac{1}{2}$ grains respectively. Gold coins are not however re-issued from the Government treasuries without special orders from the Account Department. The coinage is Imperial, and takes place at present in the Bombay and Calcutta mints only, all coinage operations having been discontinued in Madras from 1st September 1869 on the abolition of the Madras mint under the orders of the Secretary of State. The mints receive gold and silver bullion or coin fit for coinage in quantities of not less than 50 tolahs for gold and 1,000 tolahs for silver, and levy duties at the rate of 1 rupee per cent. on the produce of gold bullion or coin and 2 rupees per cent. for silver, besides a charge of $\frac{1}{4}$ per mille on gold and 1 per mille on silver for melting and cutting such bullion or coin. Additional rates are charged for inferiority to the standard quality or fineness. Receipts are then granted to proprietors which entitle them to certificates from the Assay Master for the net produce of such bullion or coin, payable at the treasury. Proprietors dissatisfied with the decision of the Assay Master can withdraw the bullion or coin tendered by them within twenty-four hours after the report, on payment of a certain fee, but without deductions on account of the duties above named. The table at foot[4] shows the value of total British coinage in India for twelve recent years. The receipts of the Mint department are mainly from the seigniorage duty on coining silver; the receipts however do not cover the charges. The diameter of the silver coins is fixed departmentally at $\frac{3}{4}$ of an inch for the quarter-rupee, $\frac{19}{20}$ of an inch for the half-rupee, and $1\frac{1}{5}$ of an inch for the rupee. The nominal or par value of the rupee is two shillings, but the real value now is about 1 shilling $7\frac{1}{4}$ pence, owing to the depreciation of the value of silver in relation to gold. *With the rupee at the rate of two shillings* the pie equals half farthing, the anna three half-pence, *the gold mohur* thirty shillings, the lakh ten thousand pounds, and the crore one million sterling. This is called the conventional rate of exchange as distinguished from the official.

[3] GOLD COINS, VALUE, WEIGHT, AND FINENESS.

—	Pure gold.	Alloy.	Total.
	GRAINS.	GRAINS.	GRAINS.
A gold mohur or fifteen-rupee piece	165	15	180
Two-thirds of a gold mohur or a ten-rupee piece ...	110	10	120
One-third of a gold mohur or a five-rupee piece ...	55	5	60

[4] VALUE OF INDIAN COINAGE.

Year ending March 31st.	Gold.	Silver.	Copper.	Total.	Year ending March 31st.	Gold.	Silver.	Copper.	Total.
	RS.	RS.	RS.	RS.		RS.	RS.	RS.	RS.
1873 ...	3,17,950	3,98,09,270	1,10,120	4,02,37,340	1879 ...	850	7,21,07,700	6,66,480	7,27,75,030
1874 ...	1,54,980	2,37,00,070	1,44,610	2,39,99,660	1880 ...	1,47,300	10,25,69,680	7,07,900	10,34,24,880
1875 ...	1,40,340	4,89,68,840	11,10,240	5,02,19,420	1881 ...	1,33,550	4,24,96,760	1,85,600	4,28,15,910
1876 ...	1,71,500	2,55,02,180	10,56,600	2,67,30,280	1882 ...	3,39,700	2,18,62,750	89,960	2,22,92,410
1877 ...	...	6,27,11,220	12,34,290	6,39,45,510	1883 ...	1,74,950	6,50,84,570	10,76,790	6,63,36,310
1878 ...	1,56,360	16,18,03,260	14,85,910	16,34,45,530	1884 ...	...	3,66,34,010	13,73,630	3,80,07,640

rate of exchange, which is fixed for each year by the Secretary of State for the adjustment of public transactions between England and India. Prior to 1870-71 the rupee had the value of 2 shillings. From the table at foot [5] exhibiting the rates prevailing in each year since then it will be observed that the former equilibrium between gold and silver has been greatly disturbed. As already observed, no gold coin, whether Indian or otherwise, is a legal tender anywhere in British India. Rupees and half-rupees are legal tender for all sums, if they have not lost more than 2 per cent. in weight and have not been reduced in weight otherwise than by use. The smaller silver coins are current subject only to the second proviso, and like copper coins are legal tender only for fractions of a rupee. Coins issued by the authority of the Portuguese Government are coined on behalf of that Government by the Government of India, and are legal tender throughout British India to the same extent and subject to the same conditions as corresponding silver and copper coins of the British Indian currency. The Act specially regulating the British coinage and mint is India Act XXIII of 1870. As in the case of the Portuguese Government, the Government of India generally strikes all the coins required for native states in the British mints. Section 3 of India Act IX of 1876, the Native Coinage Act, prescribes the conditions under which coins made for or issued by native states may be declared by Government to be legal tender in British India. The natives of this country are expert at manufacturing base money and have been known to extract all the interior of a rupee filling it up with lead. Certain officers of Government banks, municipalities, &c., have been specially empowered to cut and break coin which they believe to be counterfeit or unduly worn; and they are protected by the law from liability to prosecution. Rupees and half-rupees having by reasonable wear lost more than 2 per cent. of their weight are cut and broken, and, at the option of the tenderers, returned to them or retained by Government, the equivalents being paid to them at the rate of 1 rupee for 180 grains Troy. Small silver coins unfit for circulation by reason of the obliteration of the device upon them or other cause are cut and broken; all coins so broken being ultimately sent to the mint for re-coinage. Uncurrent copper coins, however much worn, are exchanged for good copper coins without extra charge. As far as the balances in the treasuries allow of it, copper and small silver coin are issued to persons wishing for either, the order that copper should only be issued when applied for in parcels of the value of 5 rupees having been cancelled. Silver in exchange for legal tender copper coin is likewise issued in parcels of the nominal value of not less than 2 rupees. Special arrangements are made for this purpose wherever large bodies of laborers or others are assembled for public works, &c., the object being to prevent legal tender copper coin from circulating at a discount. The old native systems of coinage once prevailing in the Presidency are described in the foot-note.[6] It will be seen that the Hindoo currency had a gold standard,

[5] PROGRESSIVE DIMINUTION IN THE VALUE OF THE RUPEE.

	s.	d.		s.	d.
1871-72	1	11	1878-79	1	9
1872-73	1	$11\frac{1}{2}$	1879-80	1	$7\frac{7}{8}$
1873-74	1	11	1880-81	1	$8\frac{1}{2}$
1874-75	1	10	1881-82	1	8
1875-76	1	$10\frac{1}{4}$	1882-83	1	8
1876-77	1	$9\frac{3}{4}$	1883-84	1	$7\frac{3}{4}$
1877-78	1	$9\frac{1}{2}$	1884-85	1	$7\frac{3}{8}$

[6] SKETCH HISTORY OF SOUTH INDIAN COINAGES.—*Hindoo coinages.*—The unit of the old Hindoo coinage in Southern India was a gold coin of about 50 grains' weight; say of the value of 3½ modern rupees, or seven shillings. They were called by various names according to the image they bore, but the best known term is varauha or 'wild boar,' derived from Vishnoo's boar avatar or incarnation. A double varauha was often coined. These two coins would approximately correspond to the drachma and di-drachma, *χρῦσος* and *διχρῦσος*, of the Greeks. The varauha was called 'hoon' (old Canarese for gold) by the Mussalmans; and has been called, in consequence of the device found on many specimens, 'pagoda' by the English. The varauha was divided into 16 panam, also a gold coin, but usually much alloyed; say of the value of 3½ modern annas, or five-pence farthing. There was no silver coinage. The copper coinage was quite indeterminate; the principal coin being a caus or cash. The Hindoo coinage continued alongside of the subsequent Mahomedan coinage. The principal coinage of the south was that of the Ikkairy Rajah of Mysore, who had mints at Mysore and Bangalore. He coined the Sadashiva hoons, so called from a former rajah. They bore the figures of Shiva and Parvaty on one side, and a pagoda on the reverse. During the usurpation of Hyder and Tippoo, Bahaudry and Sultauny hoons were struck at Mysore. The former are distinguished by the initial of Hyder's name. At Travancore also hoons were coined called Anandaroy, after a prince of that name. (2) *Mahomedan coinages.*—The Mahomedans introduced a silver currency. Their earliest currency was a gold deenaur (denarius auri), value say 2½ modern rupees, or five shillings; a silver dirhem (drachma) weighing from 40 to 50 grains, say ten pence; and a copper faloos or small coin. As the silver drachma was the unit in ancient Greece, so the dirhem was the unit in Persia and Arabia, whence this currency was imported. The term deenaur is now used in Southern India for any gold coin, the dirhem has passed unnoticed, the faloos has been coined under that title in the south for a three-pie piece. Later on the Mussalman coinage took the form of a gold mohur or seal, say 15 rupees; a silver rupee (roopyah = silver); and a copper daum, say one half-penny.

and that the silver standard was introduced by the Mussalmans. Details of law relating to coinage are shown in Vol. II, App. LIV, under the title of Coin.

802. WEIGHTS.—The orders of Government relating to weights cannot be understood except as part of the whole question of weights prevailing in Southern India. The ponderary measures which are most indigenous to this part of the country are the following:—The coondrimany or other seed weight (scarcely determinate, say 2 grains English or $\frac{1}{220}$ of an oz. avoirdupois), the gold pagoda weight (about 54 grains English or $\frac{1}{8}$ of an oz. avoirdupois), the pollum (about $1\frac{1}{4}$ oz. avoirdupois), the viss (about 3 lb. avoirdupois), the toolaum (about 20 lb. avoirdupois), and the baurum (about 500 lb. avoirdupois). In the Northern Circars the weight of the copper 'dub' coin (about $\frac{1}{2}$ an oz. avoirdupois) takes the place of the southern pollum. Other weights more or less in common use, but introduced within modern times from northern provinces, are the following:—The tolah or silver rupee weight (about $\frac{2}{5}$ of an oz. avoirdupois), the seer (say 10 oz. avoirdupois), and the maund (about 25 lb. avoirdupois). The seer just mentioned is called the cutcha (inferior) seer, to distinguish it from the pucka (regular) seer of the north, hereafter to be mentioned. There are numerous local weights in addition to the more general weights. All these weights are deduced originally from the weight of some stamped or coined piece of metallic money, and those tokens having varied in weight according to the mints which produced them, the ponderary scales which combine them have *similarly fluctuated*. The number therefore both of different values and different scales in Southern India is very great. The principal ponderary scales that need be considered at the present day in this Presidency are the five following.[7] First, the scale derived originally from the unit of the gold pagoda. This does not range now higher than the seer, and in its use is confined to jewellers and druggists. It is sub-divided into two

The first rupee is said to have been struck by Shere Shah who took the throne of Delhi from Hoomayoon, and thus this means of commemorating his reign. It then weighed about 178 grains of what was held to be pure silver. The coin had on one side stamped on it the Mahomedan creed, on the other the emperor's name and date in Persian; both sides having an annular Hindee inscription. Acbar issued a rupee of the same weight and value, but square, called Jelaulee. The names of the four friends of the Prophet, Aboo bakr, Omar, Osman, and Ally, were inscribed on the four sides, for which reason the people regarded it as having talismanic power. In the decline of the Moghul empire every petty chief coined his own rupee. These still bore the name of the reigning emperor, but varied indefinitely in weight and value. The Nawabs of the Carnatic ruling at Arcot had in the eighteenth century a rupee of $177\frac{1}{4}$ grains and 170 pure silver. (3) *English Coinages.*—The English Government at Madras at first recognized both the Hindoo and the Mahomedan coinages. The table of the former adopted for their accounts was 10 cash equal 1 doody or dooggaunny (value about 2 pies), 2 doodies equal 1 dub (value about quarter-anna), 4 dubs equal 1 silver fanam (value about $1\frac{1}{3}$ anna), 42 fanams equal 1 gold star-pagoda (value $3\frac{1}{2}$ rupees). The dub or largest copper coin passed into a general term for money. Fanam is the Tamul word panam, meaning money. The star-pagoda of the Madras mint had on one side the figure of the goddess Bhagavaty, and on the other a star. It weighed 52·56 grains, and was 42·7 grains pure gold. This table was for a long time the principal one in use by the Madras Government. During the last half of the eighteenth century the Mahomedan Nawab's Arcot rupee passed current in Madras. When on the cession of the Carnatic in 1801 the Madras mint was set up, rupees were coined by the Madras Government, of 176·4 grains with 166·48 pure. In 1818 this standard was altered to 180 grains with 165 grains pure. This was in 1835 (India Act XVII of 1835) adopted as the weight of the rupee for all India. The 1773 Sicca (seal) rupee of Bengal, weighing $179\frac{2}{3}$ grains with 175·923 grains pure, was at no time current in this Presidency. The 1835 rupee was struck in supersession of all Presidency coinages. It bore on one face the head and name of the reigning sovereign of Great Britain, and on the other the designation in English and Persian with the words East India Company in English. The anna is merely a Mahratta term for a-sixteenth. A single anna piece in silver, equivalent to $\frac{1}{16}$ of a rupee or 12 pies (containing $10\frac{5}{16}$ grains of pure silver and $\frac{15}{16}$ of a grain of alloy and weighing $11\frac{1}{4}$ grains) was in existence prior to Act XVII of 1835, 208,000 pieces of the value of 13,000 rupees having been struck in the Madras mint in 1835-36. The coinage of 1 anna pieces was discontinued from 1st September 1835, and there are now no separate coins in silver or copper representing 1 anna. The new Coinage Act, India No. XXIII of 1870, has not changed the weight or composition of the rupee. (4) *Miscellaneous Uncurrent Coins.*—The following local varieties of coins now uncurrent, may be mentioned. The 'Madras' or Mitta pagoda used in Nellore, Goontoor and other former Nawab's districts = $3\text{-}15\text{-}7\frac{1}{5}$ or 100 to 385 Arcot rupees. It was divided into 52 fanams, and each fanam into 80 cash. 'The Three Sawmy' pagoda was about $20\frac{2}{5}$ carats (twenty-fourths), or ·860 fine. The 'Porto Novo' pagoda about $17\frac{1}{4}$ carats, or ·720 fine; the exchange used to be 120 Porto Novo pagodas for 100 star, or 1 Porto Novo pagoda = 36 fanams in Government accounts, and $37\frac{1}{2}$ in the bazaar. The 'Canteroy' pagoda of Bellary and Cuddapah = 2-14-8 or 2·917 rupees. It is now a coin of account merely, and subdivided into 10 fanams of $4\frac{2}{3}$ annas each. The 'Bahaudry' pagoda of Mysore = 3-9-8. The 'Cully' pagoda or poon = 2-12-0, and contains 10 fanams, each of ·212 rupees or 3 annas $4\frac{3}{4}$ pies; and each fanam = 80 cash. The 'Shooly' pagoda or chuckram of the South Carnatic = 1·165 rupees or 3 to a star-pagoda; divided into 10 fanams, each = 1 anna 10·4 pies. The 'Pulliput' pagoda of Trichinopoly = 2-10-0. The 'Gopauly' chuckram or poon of Trichinopoly = 1-2-8, divided into 10 fanams and each fanam into sixteenths. The 'Tanjore' gold chuckram = 1-8-10, divided into 10 gold fanams, and each fanam into 32 cash; each fanam = 1 Madras double fanam of silver. The Malabar 'New Veeroye' pagoda = $2\text{-}13\text{-}8\frac{1}{2}$; it is divided into 10 fanams of 4·57 annas each, or $3\frac{1}{2}$ fanam = 1 rupee; the fanam is divided into 40 cash. The 'Old Veeroye' fanam = $\frac{1}{4}$ rupee.

[7] THE FIVE PRINCIPAL TABLES OF WEIGHTS IN USE IN SOUTHERN INDIA.

(1) *Native jewellers' and druggists' weights.*

Teloogoo Districts.

9 Chinnums	= 1 Pagoda weight.
4 Pagodas	= 1 Dub.
2 Dub	= 1 Tolah, or 30 Chinnums.
24 Tolahs	= 1 Cutcha Seer.

Tamul Districts.

9 to 10 Fanams	= 1 Pagoda weight.
10 Pagodas	= 1 Pollum.
8 Pollums	= 1 Cutcha Seer.

varieties, according as the Teloogoo dub or Tamul pollum is used. The values vary with the weight of the pagoda, which ranges according to locality from 525 to 560 grains English. They can be roughly inferred from what has been stated above. Secondly, the scale which is composed of the old weights of Southern India when referred to the Mahomedan and English silver rupee weight or tolah as a standard. Before the last half century this must have varied nearly as much as the gold pagoda scale. Since 1835 however when the British Government fixed the weight of the rupee or tolah at 180 grains English, it has been open to those who used the scale to adopt determinate quantities, and this has been very generally done. This scale is the ordinary trade scale of the interior of the country. Thirdly, the scale recognized by the Madras Government for departmental use in all matters other than those having an Imperial bearing. When the tolah under the last mentioned head is the Government tolah, this official scale is merely an extract from that scale. The values in Troy and Avoirdupois are given in this case in the table, opposite the weights, taking the present British tolah of 180 grains English. The convertibility is easy in the case of Troy weight, a coincidence which doubtless had some effect in determining the value chosen by the Government of India for the tolah. Fourthly, the scale which has been just mentioned modified by English merchants to facilitate conversion into the avoirdupois of English commerce. The correspondence of one tolah to 180 grains English is situated too low in the scale for purposes of conversion to avoirdupois. The pollum has therefore been raised in this instance to $1\frac{1}{4}$ oz. avoirdupois exact, the viss then becoming $3\frac{1}{8}$ lb., the maund 25 lb., and the candy 500 lb. This scale is used by all English merchants and tradesmen. It prevails especially in Madras town, and is recognized and enforced by the Madras collectorate. Superior native dealers also use it in all the districts. Fifthly, the scale instituted by the Government of India in 1833 taking the same tolah of 180 grains English as the unit; but creating a seer and a maund which while not deviating materially from the weights of those names to be found in Bengal, corresponded intimately, like some of the southern weights, with the Troy scale. This scale is used in the Madras Presidency for purposes of the railway departments, salt administration, and of general statistics. Besides these five scales might be mentioned that of India Act XXXI of 1871, where the seer is equal to the French kilogramme, or 2·205 lb. avoirdupois. This however is merely a theoretical scale as far as this Presidency is concerned, the Act not having been applied to it. The ponderary scales have here been classified; but even then there remain many local varieties. The local weights prevailing in each district are shown in Vol. II, App. XC.

(2) *Weights used in ordinary native trade.*

10 Pagodas weight = 1 Pollum = 3 Rupees.
8 Pollums or 24 Rupees = 1 Cutcha Seer.
80 Rupees = 1 Pucka Seer.
40 Pollums, or 5 Cutcha Seers = 1 Viss.
8 Viss = 1 Maund.
20 Maunds = 1 Candy.

(3) *Weights recognized by Government.*

Madras weights.	English Troy.			English Avoirdupois.		
	LB.	OZ.	DWTS.	LB.	OZ.	DRS.
1 Tolah	0	0	$7\frac{1}{2}$ (= 180 grains).	0	0	$6·582\frac{6}{7}$ (= 180 grains).
3 Tolahs = 1 Pollum	0	1	$2\frac{1}{2}$	0	1	$3·748\frac{4}{7}$
40 Pollums = 1 Viss	3	9	0	3	1	$5·942\frac{6}{7}$
8 Viss = 1 Madras Maund ...	30	0	0	24	10	$15·542\frac{6}{7}$
20 Madras Maunds = 1 Baurum or Candy.	500	0	0	493	11	$6·857\frac{1}{7}$

(4) *Weights used by European merchants and superior native traders.*

1 Pollum = $1\frac{1}{4}$ oz. avoir. = (5,546·9 grains).
40 Pollums = 1 Viss = $3\frac{1}{8}$ lb.
8 Viss = 1 Maund = 25 lb.
20 Maunds = 1 Candy or Baurum = 500 lb.

5) *Imperial weights of the Government of India.*

80 Tolahs = 1 Seer.
40 Seers = 1 Imperial Maund ($82\frac{2}{7}$ lb. avoir.)

803. Linear Measures.—No Government order has been passed on this subject. The basis of linear measure in the south of India is the moolum, sometimes called 'cubit'; this is the distance from the elbow to the tip of the middle finger of a full-sized man and averages about 19·7 English inches. A table is given below based on a combination of the native measures with the English yard; this is in general use and may be taken as approximately correct with reference to the equivalence of the English and native measures.[8] There is another 'ungoolam' differing from that shown in the note, and signifying the distance from the thumb-joint to the tip of the nail; this is about 1⅗ of an English inch. Of these 24 make a gajam. The Tamuls have an 'adee' or foot, averaging 10¼ inches; but it does not hold its ground against the English foot. The gajam of this Presidency varies from 26 to 39 English inches, but this is equally being superseded. In Madura and Tinnevelly the tutchacole or carpenter's stick is equal to 33 English inches. In Trichinopoly the same measure is called tutchamoolum or carpenter's cubit. The 'bauham' or fathom is 6 feet 4½ inches English in Salem and Coimbatore, but is 6 feet 6¾ inches English in Goontoor. The expression 'nauzhivazhy' in Tamul means the road or distance that can be walked in a nauzhigay or 24 English minutes, and stands for about 1½ English miles. Seven nauzhivazhy make one caudam.

804. Square Measures.—No Government order has been passed on this subject. In square measure the native land-measure which still holds its ground is—144 inches = 1 square foot, 2,400 square feet = 1 munny or ground, 24 munnies = 1 cawny, 484 cawnies = 1 square mile. The cawny is in proportion to the English acre as 121 to 160. The use of the English acre is becoming very frequent. In Vol. II, App. XC, are given the varieties of land-measure for the whole Presidency.

805. Measures of Capacity.—The scale of measures of capacity, dry and liquid, used in Government transactions is—8 ollucks = 1 measure or puddy, 8 puddies = 1 mercaul, and 400 mercauls = 1 garce. The olluck here contains 12½ cubic inches English, and 20 ollucks are equivalent to 1 English gallon. The table at foot shows the exact dimensions of the Government measures of capacity.[9] The Government recognize also a parrah of choonam, made of 5 mercauls; this contains 4,000 cubic inches, English. The Imperial measure of capacity, which it was the object of Act XXXI of 1871 to introduce (= a measure containing one Imperial seer of water at its maximum density, weighed in a vacuum), has not yet been applied to this Presidency. It cannot be said that the Government measures of capacity are at all prevalently adopted by the people. In fact in the greater part of the Presidency there are no actual measures of capacity, these measures depending in reality on the weight of different commodities used in connection with them.

[8] Madras Linear Measure with incorporation of the English Yard.

4 Ungoolams or Thumbs-breadth	= 1 Hand-breadth or digits-breadth.
2 Hand-breadths	= 1 Span.
2 Spans	= 1 Cubit or Moolum.
2 Moolums	= 1 Yard or Gajam.
2 Gajams	= 1 Fathom or Tundam.
2,000 Tundams	= 1 Coss.
4 Coss	= 1 Caudam (10 miles).

[9] Government Measures of Capacity.

Measures.	Depth and diameter inside, in cylindric inches.	Size for practice, in inches. Diamr.	Depth.	Capacity in cubic inches.	Weight of rain-water contained by each measure, the water being at 80° of Fahrenheit's thermometer in lb. Avoirdupois. LB.	OZ.	DRS.	GRS.
		Square.						
Parrah	17·2050	20 × 20	× 10	4,000	144	0	5	0
		Cylindric.						
Mercaul	10·0616	10·3	9·6	800	28	12	13	22
½ mercaul	7·9859	8·2	7·6	400	14	6	6	24
¼ do.	6·3384	6·3	6·4	200	7	3	3	13
Measure (Puddy)	5·0308	5·0	5·1	100	3	9	9	20
½ measure	3·9930	4·0	4·0	50	1	12	12	23
¼ do.	3·1692	3·2	3·1	25	0	14	6	12
Olluck	2·5154	2·6	2·4	12½	0	7	3	6
½ olluck	1·9965	2·0	2·0	6¼	0	3	9	17
¼ do.	1·5846	1·6	1·6	3⅛	0	1	12	22

Thus the seer measure is understood to be a measure which when "heaped" or poured into the measure so that the grain stands in a cone at the top, will contain a seer weight of rice. A "struck" measure, which is less usual, is that in which the cone of grain has been swept off with the flat of the hand leaving the surface of the measure flush. In the neighbourhood of Madras on the other hand and in some of the southern districts, the ordinary grain measure is a "puddy" which, though variable, does not represent any weight. Oil, ghee and milk retail are the only articles for which liquid measures are used. The smaller grain measures are used in these cases. Spirituous liquors are sold by the English bottle; and by the "dram" which is considered $\frac{1}{40}$ of the old English wine gallon of 231 cubic inches, being thus itself 5·775 cubic inches. App. XC in Vol. II gives the local varieties of measures of capacity. For the purposes of the returns of food prices sent to the Government of India, a thorough comparison was some years ago made of the local food measures in use, taking the form of a conversion of capacity measures into weight measure. In each locality it was ascertained what was the recognized measure of capacity used for selling grain and salt, what was the capacity of this measure in cubic inches, and how much weight of ordinary rice it contained in terms of the tolah or rupee weight. The ratio between the weight of ordinary rice and that of other grains and of salt having then been arrived at by two independent methods, similar results were established for the other commodities. In establishing the ratio between grains and rice, one ratio for the whole Presidency was decided on; in the case of salt however the variations in different districts, owing to reduction of weight by transport to places distant from source of supply and other causes, were so considerable that several ratios had to be taken for the whole Presidency. The Board of Revenue, who made these calculations, are acquainted thereby with the weight of each principal commodity contained in each of the local measures; and when the bi-monthly returns showing the number of measures of each commodity sold for a rupee reach them from the districts, they are in a position to issue tables showing their price lists in terms of a single common weight. At present the unit of weight adopted for the price lists is the Imperial seer of 80 tolahs, as mentioned above.

806. Stamping Weights and Measures.—A small fee is collected from shopkeepers, grain merchants, and others wishing to have their weights and measures tested and stamped in proof of their being of a fixed standard. The standards for this purpose for each locality (generally a talook) have been arrived at by local usage, sanctioned by the Collectors. Standard weights have been supplied to Collectors from the Public Works Workshop. For testing measures a number of test-glasses have been obtained from England and distributed to districts. Each Collector is supplied with two sets and each stamping establishment with one set. Tahsildars have been required to send a measure to head-quarters to be tested and corrected and returned to the talook cutcherry to be kept there as a standard. The process is to correct the weights and measures which are brought so as to make them conform to this standard, and then stamp them. Multiples are recognized but not other varieties from the standard. A uniform rate of fee is now charged in each district varying from 4 pies to 2 annas for each measure tested and stamped, and from the proceeds a small establishment is maintained for doing the work. This charge does not include what is paid to the smith who impresses the stamp. The fee is not collected under any law, but the benefit of the arrangement is appreciated by the people, and many come of their own accord from long distances to have their measures tested and stamped; the object being to establish confidence with their customers. The receipts and charges up to 1873 were assigned to the general revenues, on the understanding however that the charges should never exceed the receipts, but they were then transferred to Provincial Funds. The receipts and charges for six recent years are given in the foot-note.[10] The law relating to weights and measures is shown in Vol. II, App. LIV, under that title.

[10] Stamping Receipts and Charges.

	Receipts.	Charges.		Receipts.	Charges.
	RS.	RS.		RS.	RS.
1878-79	17,834	13,585	1881-82	16,876	14,914
1879-80	18,713	15,843	1882-83	18,091	15,631
1880-81	15,390	14,109	1883-84	...	...

807. MISCELLANEOUS.—Terms indicating direction must be mentioned, to notice the native points of the compass. These are on land eight in number, without further sub-division, as shown below.[11] The regent deities and their distinctive signs are attached to each. The Tamul terms are all Dravidian. The sense of direction by the sun is always present in the minds of the native population, and in conversation is much more frequently referred to than in Europe. The fishermen and native navigators of this Presidency use sixteen points of the compass with Malay technical names.

ECCLESIASTICAL.

808. INTRODUCTION.—The Government maintains for Protestant officials an ecclesiastical establishment proper, at the head of which is the Bishop of Madras, and the services of this establishment are extended to non-official Europeans and others resident within the Presidency. The Government also pays the Roman Catholic Bishop of Madras for a purpose hereafter mentioned, and pays or subsidizes Roman Catholic priests and Presbyterian and Wesleyan ministers as chaplains to the troops in military stations. It has the same relations with missionaries and ministers of various denominations in stations where there are no suitable chaplains. With the missionary Bishops at Tuticorin and Palamcottah, and with the Bishop of Travancore and Cochin, it has communications, but does not contribute to their emoluments. The Government builds, furnishes, and repairs churches, both Catholic and Protestant, for the use of soldiers, or pays for their sittings. Quarterly returns of baptisms and burials are collected from dissenting ministers, and also returns of marriages from those who are legally authorized to solemnize marriages.

809. PROTESTANT ESTABLISHMENTS IN THE PRESIDENCY.—By the Statute 53 Geo. III, Chap. 155 (1812-13), provision was made for the appointment of a single Bishop for the whole of India, and the Sovereign was empowered to grant to the Bishop such ecclesiastical jurisdiction and the exercise of such episcopal functions as His Majesty might think necessary for the administration of holy ceremonies and for the superintendence and good government of the ministers of the Church Establishment. Under the authority of this Statute letters-patent for the Bishopric of Calcutta were issued under date the 2nd of May 1814, establishing the See of Calcutta subordinate to the Archi-episcopal See of Canterbury, and constituting the Archdeaconry of Calcutta. The Statutes 3 and 4, Will. IV, Chap. 85 (1833), subsequently empowered the Sovereign to found and constitute the Bishoprics of Madras and Bombay, and constituted the Bishop of Calcutta Metropolitan Bishop in India. On 13th June 1835 the Bishopric of Madras was accordingly constituted by letters-patent, leaving the metropolitan jurisdiction only with the Bishop of Calcutta. The jurisdiction of the Bishop of Calcutta has also been further curtailed by the subsequent formation of the Bishoprics of Lahore and Rangoon. The Statutes 3 and 4, Will. IV, Chap. 85, also provided for the appointment of two Chaplains of the Church of Scotland to be inducted and ordained by the Presbytery of Edinburgh according to the forms and solemnities used in the Church of Scotland, and to be subject to the spiritual and ecclesiastical jurisdiction in all things of the Presbytery of Edinburgh. The law specially affecting the Church

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[11] SOUTH INDIAN POINTS OF THE COMPASS.

English names.	Tamul names.	Hindoo regent deity.	His sign.
North	Vadakk	Coobairan, god of wealth	Elephant.
North-east	Vadagizhakk	Eesaunyan	Crow.
East	Kizhakk	Indran, god of the atmosphere	Thunderbolt.
South-east	Tengizhakk	Agny, god of fire	Smoke.
South	Terkk	Yaman, god of hell	Lion.
South-west	Tenmerkk	Nirrity, a giant	Dog.
West	Merkk	Varoonan, god of seas and rivers	Bull.
North-west	Vadamerkk	Vayoo, god of wind	Ass.

of England is found in the following enactments:—(1) Bishop—53 Geo. III, c. 155, s. 53 (A.D. 1812-13); an Act for continuing in the East India Company for a further term the possession of the British territories in India, together with certain exclusive privileges; for establishing further regulations for the government of the said territories, and the better administration of justice within the same, and for regulating the trade to and from the places within the limits of the said Company's charter—3 and 4 Wm. IV, c. 85, ss. 89–100 (A.D. 1833); an Act for effecting an arrangement with the East India Company, and for the better government of His Majesty's Indian territories, till the thirtieth day of April 1854—5 and 6 Vict., c. 119 (A.D. 1842); an Act to enable Her Majesty to grant furlough allowances to the Bishops of Calcutta, Madras, and Bombay who shall return to Europe for a limited period after residing in India a sufficient time to entitle them to the highest scale of pension—15 and 16 Vict., c. 52, s. 2 (A.D. 1852); an Act to enable Colonial and other Bishops to perform certain Episcopal functions, under commission from Bishops of England and Ireland—16 and 17 Vict., c. 49 (A.D. 1853); an Act to extend the provisions of an Act of the fifteenth and sixteenth years of Her present Majesty, intituled "An Act to enable Colonial and other Bishops to perform certain Episcopal functions, under commission from Bishops of England and Ireland"—34 and 35 Vict., c. 62 (A.D. 1871); an Act to enable Her Majesty to make regulations relative to the leave of absence of Indian Bishops on furlough and medical certificates—37 and 38 Vict., c. 77, ss. 7, 8, 12, 13 (A.D. 1874); an Act respecting Colonial and certain other clergy—43 Vict., c. 3, s. 3. (A.D. 1880); an Act to amend the Law relating to the salaries and allowances of certain officers in India; and for other purposes relating thereto. (2) Archdeacon—53 Geo. III, c. 155, ss. 49, 50, 89 (A.D. 1812-13), (see above)—4 Geo. IV, c. 71, ss. 3 and 4 (A.D. 1823); an Act for defraying the charge of retiring pay, pensions, and other expenses of that nature of His Majesty's forces serving in India; for establishing the pensions of the Bishop, Archdeacons, and Judges; for regulating ordinations; and for establishing a Court of Judicature at Bombay—3 and 4 Wm. IV, c. 85, ss. 98–101 (A.D. 1833), (see above)—43 Vict., c. 3, s. 3 (A.D. 1880), (see above). (3) Chaplains—4 Geo. IV, c. 71, s. 4 (A.D. 1823), (see above). (4) Church of England Clergy generally—59 Geo. III, c. 60, s. 1 (A.D. 1819); an Act to permit the Archbishops of Canterbury and York and the Bishop of London for the time being to admit persons into Holy Orders specially for the Colonies—37 and 38 Vict., c. 77 (A.D. 1874), (see above)—Act XV of 1872, ss. 5, 10, 11, 28 and 29, The Indian Christian Marriage Act. (5) Church of Scotland Clergy generally—3 and 4 Wm. IV, c. 85, s. 102, (see above)—Act XV of 1872, ss. 3, 5, 31, The Indian Christian Marriage Act. The details of the law are given under the heads of "Archbishop," "Bishop," and "Archdeacon" in Vol. II, App. LIV.

810. The Madras Ecclesiastical establishment proper consists of a Bishop,[1] an Archdeacon (who must be one of the Chaplains and is appointed by the Bishop),[2] 40 Chaplains (including the Archdeacon), and a Registrar. The Bishop superintends the spiritual work of the diocese; holds confirmations; ordains, licenses, and exercises jurisdiction over the clergy; visits all the stations at which clergy are located and many of the outstations, as a rule once in three years; inspects the registers and other church books; recommends to Government the appointments and removal of Chaplains; reports upon the advisability or otherwise of proposals for new churches, improvements in churches, changes in

[1] List of Protestant Bishops.—*Bishops of Madras*—Rt. Rev. Daniel Corrie, D.D., consecrated 14th June 1835, installed at Madras 28th October 1835, died at Madras 5th February 1837. Rt. Rev. John George Trevor Spencer, D.D., consecrated 19th November 1837, installed 4th November 1838, Letters Patent dated 4th November 1837, resigned 1849. Rt. Rev. Thomas Dealtry, D.D., consecrated at Lambeth 2nd December 1849, installed at Madras 2nd February 1850, died at Madras 6th March 1861. Rt. Rev. Frederick Gell, D.D., consecrated 29th June 1861, installed 27th November 1861. (2) *Missionary Bishops.*—Rt. Rev. Robert Caldwell, D.D., LL.D., consecrated 11th March 1877. Rt. Rev. Edward Sargent, D.D., consecrated 11th March 1877. (3) *Travancore and Cochin.*—Rt. Rev. J. M. Speechly, D.D., consecrated 25th July 1879, installed at Cottayam 1st February 1880.

[2] List of Archdeacons of Madras.—Archdeacon Thomas Robinson appointed 7th May 1828, retired 7th January 1836. Archdeacon Henry Harper appointed 11th January 1836, retired 25th August 1846. Archdeacon Vincent Shortland appointed 1st November 1846, retired 10th December 1859. Archdeacon Thomas Dealtry appointed 1st December 1861, retired 2nd May 1871. Archdeacon John Gorton appointed 4th August 1871, retired 8th July 1875. Archdeacon C. R. Drury appointed 9th March 1875, retired 11th September 1881. Archdeacon G. Warlow appointed 11th September 1881, died 25th January 1884. Archdeacon J. F. Browne appointed 2nd February 1884.

any of the ecclesiastical arrangements. The Archdeacon attends more particularly to the details of church establishments, church furniture, cemeteries, repairs, budgets; and communicates with the Government on these subjects. No special pension attaches to the office of Archdeacon, the ordinary Chaplain's pension only being granted to holders of the office. The Chaplains are divided into two classes, senior and junior, the proportion of senior to junior Chaplains being 15 to 25. Promotion to the senior class is attained upon the completion of 10 years' service, or earlier if the number of senior chaplaincies at any time falls below 15. Chaplains are required to serve 20 years for a full pension. Seventeen of those years must have been spent in actual service. Smaller pensions are granted on retirement enforced through sickness. Retirement is compulsory on the completion of 25 years. One of the Chaplains is appointed by the Bishop to be his Domestic Chaplain. The others are appointed by the Government to the charge of stations, 33 in number, counting each sub-division of a station as one; as shown in Vol. II, App. LXXIV. Every Chaplain at a station in which there are European troops visits the schools and hospitals under stated rules. To several stations are attached outstations; these are visited periodically by the Chaplain of the station.

811. Besides the Chaplains there are other European and a few Eurasian clergymen, who are either in receipt of grants-in-aid from Government, or are at any rate under the spiritual direction of the Bishop of Madras. Some of these minister to European congregations who are not entitled to the services of a resident Government Chaplain, and some are missionaries. The former receive their salaries either from one of two societies for providing additional clergy, or from local contributions, or from both; the Government in all cases allowing a grant-in-aid. A list of the stations served by this class is given in Vol. II, App. LXXIV. The missionaries, as such, are not connected with Government, but are wholly maintained by the various missionary societies, especially the Society for the Propagation of the Gospel, and the Church Missionary Society.[3] For the stations, see the lists in

[3] SKETCH HISTORY OF PROTESTANT MISSIONS IN SOUTHERN INDIA.—*Introduction.*—An account will here be given of each principal mission in the order of their historical origin, with some concluding remarks on the same subject viewed geographically. (2) MISSIONS VIEWED CHRONOLOGICALLY—*The Danish Mission.*—The first mission in Southern India, and in fact in any part of India was the Danish one at Tranquebar. The first missionaries were Ziegenbalg and Plutschau, who came out in 1705. They met with little sympathy, and were much opposed by the Governor, who finally imprisoned Ziegenbalg for four months. Soon afterwards three new missionaries came out, who also opposed their predecessors. In spite of these drawbacks the mission obtained 160 converts in three years and a half. The first contribution made to Indian Missions from England was by the Propagation Society (established in 1701) in 1709, the amount of the contribution being £20, with some books. In 1711 Plutschau went home to lay the state of matters before the King of Denmark, who after this took some interest in the affairs of the mission. In 1714 Ziegenbalg went home and afterwards proceeded to England, where he was received with enthusiasm. He returned to India in 1716, and died in 1719. The mission was now left in the hands of Schultze, Dahl, and Keisteomacher, by the first of whom, the translation of the Bible into Tamul, originally commenced by Ziegenbalg, was completed in 1725. The Madras Government opened schools at Tranquebar, and the missionaries were placed in charge of them. By the end of 20 years the number of converts was 678. In 1726 Schultze established a mission in the town of Madras, afterwards taken over by the Society for the Promotion of Christian Knowledge; which in 1730 sent Mr. Sartorius to take charge. Medical missionaries were also sent out in 1732, whose influence seems to have been great. Mission stations were now formed at Negapatam, Sadras, Fort St. David, and Cuddalore in 1737. Sartorius died in 1738 and was succeeded in 1740 by Kiernander, who remained at his post throughout the siege by the French in 1746. During the next 10 years the converts increased by 3,812. When the French captured Madras in 1746, the mission-house was destroyed, and Fabricius who was in charge of the mission, retired to Poolicat. After the return of the English to Fort St. George in 1748, the buildings of the Roman Catholic Mission at Vepery were presented to the Protestant mission. In July 1750 the great missionary Schwartz came out. At the end of 50 years' work the result was 11,000 converts. In 1758 the French again besieged Fort St. George, and occupied Black Town. Fabricius then appealed to Lally, who generously protected the mission. In 1760—62, churches were erected at Trichinopoly, Cuddalore, and Pollam. Schwartz settled at Tanjore in 1776 and founded a mission there, and built a church in 1779. His personal influence with all classes was so great that in 1779 the Governor of Madras sent him on a political mission to Hyder Ally. During Hyder's subsequent devastations, complete confidence was placed in Schwartz by the natives, and Hyder respected him so much as to issue general orders to his army to allow Schwartz to proceed wherever he wished. Twice when the Fort of Tanjore was threatened with famine, Schwartz by his excellent management relieved it. Afterwards when the British Government took temporary charge of the Tanjore Kingdom, Schwartz was appointed a member of the Committee of Inspection at the urgent request of the Resident. At the death of the Tanjore Rajah, Schwartz was appointed guardian to his adopted son, and also placed in charge of the Court of Justice at Tanjore. He died in 1799 after forty-eight years of uninterrupted work. About this time the Danish Mission became involved in pecuniary difficulties, as they could not communicate directly with Denmark in consequence of the war in Europe; they were however liberally helped by the Society for the Promotion of Christian Knowledge. In 1814 Schnarre and Rhenius came out, the latter to Madras. In 1816 there were 500 converts in Trichinopoly under the charge of Pohle. All these missions were finally transferred to the Society for the Propagation of the Gospel, and the Leipsic Lutheran Mission. (3) *Society for the Propagation of the Gospel in Foreign Parts.*—The S.P.G.F.P. was organized in England in June 1701, and at the same time was incorporated by charter, by King William the Third, for the receiving, managing, and disposing of funds contributed for the religious instruction of the Queen's subjects beyond the seas; for the maintenance of clergymen in the plantations, colonies, and factories of Great Britain; and for the propagation of the Gospel in those parts." In fact it was to provide for the ministrations of the Church of England in the British Colonies, and to propagate the Gospel among the native inhabitants of those countries. The Society began its labours in India about 1728, through the instrumentality of some of the German missionaries who frequently visited Madras from Tranquebar, and the co-operation of Lewis Stephenson and other chaplains, as well as Mr. Pitt, the then Governor of Madras. The factory of Madras was distin-

Vol. II, App. LXXIV. Native clergymen, Tamul, Teloogoo and Malayalam, constitute a third and continually growing class. The Bishop is assisted in the superintendence of missions and the native church by Bishops (now two, located at Tuticorin and Palamcottah) consecrated for the purpose. The affairs of the native

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guished in having the first Protestant church built in it by Mr. Streynsham Master. Schultze was the first missionary appointed and supported by the S.P.C.K. in 1216 or 1728. In 1818 the S.P.G. voted £5,000; and in the same year took charge of the direct missionary operations hitherto in the hands of the S.P.C.K. and managed by foreign missionaries chiefly sent out from the college at Copenhagen. Some of the latter, such as Schwartz, Fabricius, Gericke, and others, were men of great eminence. The Diocesan Committee was formed by Bishop Heber in 1822 or 1823. (4) *The London Missionary Society.*—The first station occupied by the London Mission in the Madras Presidency was the city of Madras in 1804, in charge of the Rev. W. Loveless, and afterwards, in 1805, Vizagapatam, in charge of the Rev. Messrs. Cran and Desgranges. In 1806 work was commenced in Travancore by Rev. W. T. Ringletaube; and in 1810 in Bellary by Rev. John Hands. Bangalore was occupied by Rev. Messrs. Laidler and Forbes in 1820; Cuddapah by Rev. W. Howell in 1822; Salem by Rev. Henry Crisp in 1827; Coimbatore by Rev. W. B. Addis in 1830; Vizianagram by Rev. W. Dawson in 1852; and Nundiaul by Rev. R. D. Johnston in 1855. The head-quarters of the Nundiaul Mission were transferred to Gooty in 1881 by Rev. W. W. Stephenson. At all these stations, in addition to preaching, much attention has been given to the education of the young of both sexes. Many of the missionaries have also aided materially in the translation of the Holy Scriptures, and in other literary work. The total number of converts at all the stations is now 54,543. (5) *The Church Missionary Society.*—The Church Missionary Society sent its first missionaries to South India in 1814. Two missionaries were sent to Tinnevelly, at the request of the Rev. Mr. Hough, Chaplain of Palamcottah, in the year 1820. Mission work in the kingdom of Travancore was commenced in 1816, and in the Kistna and Godavery districts in the year 1841. All of these missions have been maintained until the present time. Of late years a new mission has been started amongst the Koois, a branch of the Khond nation. At present in the South Indian Mission, excluding the diocese of Travancore and Cochin, there are, connected with the society, European clergymen, 20; native clergy, 76; the majority of whom are paid by and are under the direction of the Native Church Councils, bodies to whom certain powers of self-government are given, and to whom the society gives a grant-in-aid to meet the expenses of the several pastorates under them. The number of Christians is 50,955, of catechumens 14,254. There are in the mission two second-grade colleges, six high schools, and a large number of primary schools. In each large station, there is a boarding school for boys and girls. The total number of scholars in the Society's schools is 20,903. The Native Christians raise for church expenses and charitable objects about Rs. 41,000 a year. In the diocese of Travancore and Cochin there are eight European missionaries, 16 native clergymen, 18,539 Christians, and 1,308 catechumens. The scholars in the schools amount to 5,404. (6) *The Wesleyan Missionary Society.*—The first Wesleyan missionary was sent to Madras in 1818 from Ceylon, where Wesleyan Missions had been established for some years. In 1821 a chapel was built in Madras, and the same year Negapatam, as being on the highway between Ceylon and Madras, was fixed upon as a second centre. The work of the mission has from that time been carried on in and around these two places; that is to say in Madras and the Chingleput district in the north, and in Negapatam and the Tanjore district in the south. To these was added in 1847 the town and neighbourhood of Trichinopoly, and in more recent years a part of the Coimbatore district with Caroor as a centre. During the first 20 years the missionaries devoted themselves almost exclusively to preaching to the English soldiers and to the European and Eurasian communities, but as their numbers increased they devoted more of their time to vernacular preaching and to elementary education. In 1851 a change of policy with reference to their educational work took place, and many of the vernacular schools were closed to make way for large central institutions designed to give English education. The chief operations of the mission consist now in "a" English preaching, "b" vernacular evangelistic and pastoral work, "c" English and vernacular schools for boys and girls, "d" an industrial orphanage at Caroor, and "e" medical and zenana work in Madras and elsewhere. The following are the statistics of the mission:—number of missionaries, both Europeans and natives, 19; number of catechists, 36; number of school teachers, 249; number of scholars, 5,166; number of Christians, 2,335; grant from England (in 1884) Rs. 86,107. (7) *The American Madura Mission.*—The American Madura Mission was established in 1834 and is the youngest of three missions established in India and Ceylon by the American Board. The Rev. Messrs. Hoisington and Poor were sent by the older mission at Jaffna, and through their efforts a footing was gained in Madura and the work was thoroughly inaugurated. Since then the work has been continuously and successfully conducted to the present, when the Christian community numbers 11,516 souls, of whom 2,908 are communicants. More than one hundred missionaries, male and female, have joined the mission from America during its history. Of these twenty-five are now engaged in the work. These are aided by 377 native agents, of whom eighteen are ordained. The educational work of the mission is represented by 200 schools in which about 5,000 boys and girls are being educated. The highest of these institutions is that at Pasoomullay, which is a second-class college. (8) *The Basel Evangelical Mission.*—This Society has its name from the city of Basel in Switzerland and was founded in the year 1815. In 1834 the first missionaries were sent out to India, among them the famous Hebich. They arrived in Mangalore in South Canara on the 30th October 1834. The mission was reinforced in 1836 by four and in 1839 by five new arrivals. Besides Mangalore they began work at Honore in North Canara, at Dharwar in the South Mahratta country, and at Tellicherry in Malabar; in three different languages, viz. Tooloo, Canarese, and Malayalam. In 1846 the Neilgherry district was also taken up by this mission and in 1853 the country of Coorg. There are now 15 headquarters or stations, and in connection with these there are about nearly 100 villages in which converts reside. Special branches of this mission are occupied industrially, viz., in printing, weaving and tile-manufacture. These are at Mangalore, Cannanore, and Calicut. This last part of the work is done by a separate staff of 17 lay missionaries, whilst in the ecclesiastical, in itinerating and school work there are employed 46 missionaries and 73 catechists and native preachers. The converts number 6,500. In schools there are 2,700. (9) *The American Baptist Teloogoo Mission.*—The Rev. Samuel S. Day opened work in the city of Madras in 1836 but removed to Nellore in 1840. Work in the Nellore district was for many years from 1849 carried on by the Rev. L. Jewett, D.D. The Rev. J. G. Clough opened work in Ongole in 1866. The mission now has 14 principal stations, 20 missionaries, and 20,000 communicants. The larger part of the converts has come from the Nellore and the Kistna districts. The principal schools are a high school in Ongole, a theological seminary in Ramaputnam, and an industrial school in Nellore. (10) *The Free Church of Scotland Mission.*—The Free Church of Scotland Mission was commenced by the General Assembly in 1837, and at the disruption in 1843 continued in connection with the section of the Church known as the Free Church of Scotland. Its work has been distinctively educational. The Rev. John Anderson, the first missionary, founded in 1837 the "General Assembly's Institution," which was afterwards known as "the Free Church Mission Institution," and since 1876, when other missions took a share in its support and management, as "The Madras Christian College." The first associate of Mr. Anderson was the Rev. Robert Johnstone, who died in 1853. Mr. Anderson continued at the head of the mission from 1837 till his death in 1855, when he was succeeded by the Rev. J. Braidwood, who retired in 1860. After a brief tenure of the office, the Rev. A. B. Campbell was succeeded in 1863 by the Rev. William Miller who has continued since then to be Principal of the College. In 1867 the management of the mission outside the college was entrusted to the Rev. W. Stevenson as Secretary; an office which he held till his retirement in 1884. At an early period in its history, the mission opened several branch schools for boys, of all of which, as well as of the college, the combination of religious with secular instruction has always been the most marked characteristic. In 1843 it commenced the work of South Indian female education. In 1884 it had 11 schools for boys and 17 for girls, at which it was educating more than 1,400 of the former and about 1,600 of the latter. This is exclusive of the Christian College at which there were 1,000 pupils in the school department and 450

churches, in matters not spiritual, are managed by councils composed chiefly of native clergy and laity, and by the committees of the missionary societies. The native church councils are of two kinds; the smaller or district councils, and the larger or provincial.

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under-graduates in the college. The Christian College is the largest affiliated institution of the Madras University and takes a leading place in influencing all higher education throughout the south of India. Besides its educational work the mission has several native congregations, and, besides the professors and Christian teachers in the college, it employed in 1884 five European and more than seventy Native Christian agents as ordained clergymen, preachers, catechists, and teachers. (11) *The Leipzig Evangelical Lutheran Mission.*—The Danish Mission has been continued by the former Dresden now Evangelical Lutheran Mission Society since 1841. This Society was removed from Dresden to Leipzig in 1848 for the purpose of enabling young mission candidates to hear theological lectures. (12) *The American Evangelical Lutheran Mission.*—This mission was founded in 1842 by the Rev. C. F. Heyer, and was handed over to the Foreign Missionary Society of the Lutheran Church in 1843. Mission stations were established at Goontoor and Pulnaud, and the work of the mission progressed so favourably that in 1851 the North German Missionary Society transferred their mission at Rajahmundry to its care. In 1859 a new station was established at Samulcottah, so that the mission then numbered four stations. Owing to the civil war in America the resources of the mission were much tried so that for want of funds to support missionaries the whole of the four mission stations were at the end of the year 1866 placed under the charge of the Rev. Unangst. The prospect of new missionaries at this time was slender, and proposals were made to transfer the Rajahmundry and Samulcottah mission stations to the care and possession of the Church Missionary Society; but the Pennsylvania Synod protested against this transfer and the Rev. C. F. Heyer, who had since retired, was again sent out in December 1869 to assume charge of the stations till assistance could be procured. Shortly after this he was relieved and returning to America died in 1873, aged 81 years. In 1871 the Rev. Unangst returned to America, leaving the mission work in charge of Mr. Cully, an evangelist of the mission. While in America he visited the Synods and a number of congregations and Sunday schools, and aroused an interest in the mission. A conference was constituted for the transaction of bnsiness, and Mr. Cully was the first who was ordained by it to the ministry. Mr. Rowe, another missionary who was appointed in 1874, was called the "children's missionary," his work being in connection with Sunday schools. The Women's Missionary Society of the Lutheran Church resolved to assume the support and expense of zenana work and of the girls' schools in Goontoor, and for this purpose appointed Miss R. M. Boggs as their missionary. (13) *The Arcot Mission of the Reformed Church in America.*—The following are the statistics and facts. Founded in the North Arcot district in 1851 by Rev. H. M. Scudder, Sr., D.D., M.D. 1852—Rev. Messrs. William W. Scudder, M.A., and Joseph Scudder, M.A., arrived; a medical dispensary was opened in Wallajahpett; stations occupied were Vellore, Chittore, and Arnee; the Arcot seminary for boys, and the female seminary, both boarding schools, were established; "Spiritual Teaching" in Tamul and Teloogoo and "Jewel Mine of Salvation" in Tamul were published. 1855—Rev. E. C. Scudder, Sr., M.A., and Rev. J. W. Scudder, M.A., arrived; Christians increased from 150 to 350. 1856—Coonoor occupied; church built in Vellore; "Sweet Savours of Divine Truth" in Tamul published; Christians 459. 1857—Church built in Chittore; Christians 510. 1859—Rev. J. Mayon, M.A., joined; Pulmanair occupied; churches built in Arnee and Coonoor; Rev. Andrew Sawyer, first native pastor, ordained; first village came over to Christianity; Christians 579; Rev. Joseph Scudder, M.A., retired. 1860—Rev. J. Chamberlain, M.A., M.D., and S. D. Scudder, Esq., M.A., M.D., arrived; Christians 612. 1861—Rev. John Scudder, M.A., M.D., arrived; Christians 796. 1862—S. D. Scudder, M.D., was ordained to the Gospel ministry; two Brahmins were baptized; Christians 828. 1862.—Three villages joined; Madanapully was occupied; preparandi school for Hindoo converts was founded; Christians 1,021. 1864—Rev. H. M. Scudder, Sr., D.D., M.D., retired; three villages joined; Christians 1,124. 1865—"The Bazaar Book, or Vernacular Preacher's Companion" in Tamul was published; Christians 1,124. 1866—Arcot dispensary opened in Ranipett; female seminary building at Chittore completed; eight villages joined; Christians 1,525. 1867—Three villages joined; Christians 1,723. 1868—Arcot seminary building at Vellore completed; "Sahodara Sungam," or Society of Brethren, to aid indigent Christians, was founded; "Jewel Mine of Salvation" in Teloogoo published; thirteen villages joined; Christians 2,094. 1869—Rev. J. Mayon, M.A., retired; translation into Tamul of the Heidelberg Catechism published; three villages joined; Christians 2,164. 1870—Misses M. Mandeville and Josephine Chapin joined; four villages added; Christians 2,274. 1871—Four villages joined; Christians 2,478. 1872—Rev. Messrs. W. W. Scudder, D.D., and S. D. Scudder, M.D., retired; Rev. E. J. Hieren joined; two Hindoo girls' schools opened in Vellore; thirteen villages added; Christians 3,250. 1873—two villages added; Christians 2,725. 1874—Miss Chapin retired; H. M. Scudder, Jr., M.D., and Rev. J. H. Wyckoff, M.A., joined; Christians 2,523. 1875—Lying-in hospital opened at Ranipett; Christians 2,452. 1876—Rev. E. C. Scudder, Sr., M.A., retired; Tindivanam occupied; Christians 2,574. 1877—Rev. E. J. Hieren, M.A., retired; Christians 4,398. 1878—Branch dispensary opened in Wallajahpett; Christians 5,803. 1879—Christians 5,586. 1880—H. M. Scudder, Jr., M.D., retired; also Miss M. Mandeville; Christians 5,100. 1881—Rev. J. W. Conklin, M.A., joined; Native Pastors' Aid Society founded; Christians 5,277. 1882—Rev. L. Hekins, M.A., M.D., and Rev. E. C. Scudder, Jr., M.A., joined; Christians 5,371. 1883—Miss M. H. Scudder joined; Christians 5,405. Statistics at close of 1883.—Missionaries 7, assistant missionaries 6, native ministers 4, catechists 26, assistant catechists 16, masters in Anglo-vernacular schools 30, readers and schoolmasters 28, village schoolmasters 19, schoolmistresses 11, colporteurs 6, female Bible readers 7, principal stations 8, village outstations 80, schools 88, boys in schools 1,314, girls in schools 603, communicants 1,625, total of Christian adherents 5,405. (14) *The Strict Baptist Mission.*—This mission was established in Madras in December 1866 by H. T. Doll, missionary and superintendent of the mission. It has ten centres of evangelical work; one in the Madras District, two in the Chinglepu District, and seven in the Tinnevelly District. In December 1881 the mission was established in the Tinnevelly District; but prior to that time there were Baptists of some 30 years' standing, or more, in certain parts of that district. The following are the statistics:—Missionaries 2 males and 1 female, 3 native ministers, 1 native preacher, and 14 teachers, zenana woman 1, churches 7, communicants 210, adherents 250, Hindoo caste girls' school 1, Hindoo caste boys' school 1, out-caste schools 6. There are also 3 indigenous English Strict Baptist churches. (15) *The Hermannsburg Evangelical Lutheran Mission.*—In the beginning of 1866 a missionary named H. Mylins, sent by the Hermannsburg Mission from the once kingdom of Hanover, joined the southern part of the Nellore District for the purpose of inaugurating a mission. After some difficulty he procured two pieces of land, one at Naidoopett, and one at Goodoor. Soon after, three more missionaries, Messrs. Dahl, Petersen, and Brunotte, arrived. The first mission-house was built in 1867. The then Collector of Nellore, the late Mr. Boswell, was instrumental in extending the mission. The mission has since been gradually increasing and now has seven stations in the Nellore District, three in North Arcot and one in Cuddapah. About 1,100 Hindoos have been baptized up to the present date. (16) *The Canadian Baptist Teloogoo Mission.*—The Canadian Baptist Teloogoo Mission commenced operations in 1874, when a station was opened at Cocanada in the Godavery District. During the next year a station was opened at Bimlipatam. At the close of the year 1884 there were six mission stations, eight missionaries and their wives, besides one zenana lady worker. The number of church members was 1,717. (17) MISSIONS VIEWED BY DISTRICTS.—The following paragraphs give some information under this head. (18) *North and South Arcot and Salem Districts.*—The first mission in Arcot was founded at Cuddalore in 1737 at the instigation of Sartorius. Twenty years before this, in 1717 Ziegenbalg had commenced a school there. The mission was finally transferred to the Propagation Society, and flourished. More extensive operations were undertaken by the American Reformed Protestant Dutch Church Mission under Dr. Henry Scudder, in 1850. He established a mission at Arcot and was joined by other members of his family. In 1855 the Propagation Society transferred to them the Vellore and Chittore missions. In 1873, 24 villages near Madanapully simultaneously embraced Christianity. The Danish Lutheran Society of Copenhagen commenced a mission in this district

812. At every station where there is Government church property two gentlemen appointed by the Government to be Lay Trustees form, with the Chaplain as president, a church committee. The duties of Lay Trustees resemble in some respects those of churchwardens. They also conduct Divine service in the absence of the Chaplain. The churches for European congregations are, with rare exceptions, the property of Government. One of the churches in Madras is the cathedral of the Madras Diocese. Two Chaplains are assigned to it. But there is no chapter; nor are there any distinctively cathedral officers.

813. On the 31st of March 1884 the total number of Protestant clergymen in the Diocese of Madras was 232, of whom 38 were Government Chaplains; 25 were Europeans or Eurasians employed in education, or ministering to English congregations, or retired; 2 were Bishops superintending parts of the native church; 40 were European and Eurasian missionaries; 124 were native pastors; and 3 were native clergymen otherwise employed, or retired. By the last returns the number of European and Eurasian Christian members of the Church of England was 23,587. The returns from the mission stations of the two principal missionary societies are given below.[4]

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in 1861, and in the same year the Church of Scotland opened one at Vellore. In Salem the London Missionary Society had at a recent date 14 congregations; this mission was founded in 1827. At a recent date these districts contained 4,536 converts, and 77 schools with 1,972 pupils. (19) *Cuddapah, Kurnool, and Nellore Districts.*—These districts contained at a recent date 13,798 Christians, mostly of low caste tribes. The Propagation Society Mission commenced in 1817 and the London Society Mission in 1822. The American Baptist Mission began operations in 1840. This mission has six theological and training schools. The Free Church Mission which was started in Nellore in 1840 is chiefly educational. The Hermannsburg Lutheran Society of Hanover has six stations in Nellore, established since 1865. (20) *Kistna, Godavery, Vizagapatam and Ganjam.*—Kistna was occupied by a German Lutheran Society of America in 1842, which started another mission at Pulnaud soon after. The Church Missionary Society was started in 1841 by Noble, Fox, and Sharkey. In 1838 a mission was started in Godavery, called the Godavery Delta Mission, which is quite independent of any external help. At Rajahmundry the American Evangelical Lutherans have several missions. The London Mission Society in Vizagapatam was started in 1805 by Cran and Desgranges. This mission has been much engaged in the translation of the Scriptures into Teloogoo. The General Baptist Society started a mission at Berhampore in Ganjam in 1837. (21) *Bellary and Mysore.*—The missions in Bellary and Mysore are chiefly among the Canarese. The London Society established a mission at Bellary in 1810, by means of the Rev. John Hands. Another mission was founded at Bangalore in 1820. The Wesleyan Mysore Missions were started 50 years ago, by Messrs. Hoole and Mowat. The oldest mission in Mysore is that of the Propagation Society, founded at Bangalore in 1817. In 1871 this mission had no European agent on the spot, an instance of self-government in the native church. (22) *North Travancore and Cochin.*—North Travancore and Cochin has been inhabited by Syrian Christians from a remote period. Atthe beginning of the sixteenth century, Vasco da Gama found these Christians scarcely subject to any Hindoo king, but with petty rulers of their own. They were afterwards much persecuted by the Portuguese. In 1816 the Church Missionary Society sent three missionaries to Travancore, at the request of Colonel Monro, the Resident. These missionaries formed a council in conjunction with the Metran or Syrian Bishop, for the management of all the Syrian churches. Matters were conducted in this manner without any difficulty till 1838, when objections arose and the union was dissolved, the endowment of the previously founded Syrian college being divided between the Metran and the Society, to be used for educating Native Christians. (23) *South Travancore.*—The mission in South Travancore was commenced in 1806 by Ringletaube of the London Missionary Society. He left the place in 1815, and was never heard of again. In 1818 his place was taken by Mead and Kuill, who lived at Nagarcoil. (24) *Tinnevelly.*—This district contains a large number of Native Christians. The mission was originally an outstation from Tranquebar, and in 1771 a Dutch Christian went to reside at Palamcottah. Jænicke joined the mission in 1791, and carried on the work by continual visitations. During an outbreak of the Poligars, the Christians were exposed to much persecution, but afterwards Gœricke travelled through the district, and collected the congregations again. In 1830, 10 missionary districts were formed. In 1829 these missions were surrendered by the Christian Knowledge Society to the Propagation Society, which appointed Rosen to manage them. In 1835 a controversy rose as to whether ordination by an English Bishop was indispensable in the case of catechists, in consequence of which Rhenius and the other German Missionaries left the Society and formed themselves into the German Evangelical Mission. Bishop Corrie tried to adjust the difference, but failed. Rhenius died in 1838, and in 1839 half the separated congregations reunited with the Church Mission, and the remainder in 1840. The Propagation Society meanwhile flourished, one of the most eminent of its members being the Rev. now Bishop Caldwell. A schism now arose among the Shaunar converts which resulted in the formation of the "Hindoo Church of the Lord Jesus." They have rejected everything which appears to them to have a European origin, amongst others, infant baptism, the ordained minister, and the use of wine at the Lord's supper, the unfermented juice of grapes being substituted; they also observe Saturday as the Sabbath, instead of Sunday. (25) *Madura.*—The work in this district was originally commenced by the Tranquebar Danish Missionaries. It was afterwards nominally under the Christian Knowledge Society, but was then again transferred to the Propagation Society. The most important missions in this district, are those of the American Board, which commenced operations in 1834. A seminary or theological college was founded in 1842. There are now 11 central stations in this district.

[4] STATISTICS OF MISSION STATIONS.

Society for the Propagation of the Gospel.

Number of villages in which there are Christians.	968	Number of Christians	43,363
Do. of clergy	60	Catechumens	16,788
Do. of catechists	188	Grant from England (which does not include special funds) ... ... Rs.	1,32,500
Other agents	285		
Baptisms during the year	2,575		

Church Missionary Society.

Number of villages in which there are Christians.	1,148	Number of Christians	49,942
Do. of clergy	95	Catechumens	14,827
Lay agents (men)	592	Grant from England (which does not include special funds) ... ...Rs.	1,90,049-8-0
Do. (women)	692		

814. Catholic Establishments in the Presidency.—The Catholic establishments of Southern India are to be classed as missionary in the sense of not being State establishments. Their history is briefly sketched in the foot-notes [5] and [6].

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[5] Sketch History of Catholic South Indian Missions Generally.—*Saint Thomas in India.*—The origin of Christianity in India is obscure. The tradition generally accepted by Catholics connects it with Saint Thomas the Apostle, who is said to have preached on the east coast, and finally to have been murdered at the Little Mount near Madras. Many years later the Patriarch of Babylon hearing of the desolate state of the Church in India, sent out bishops of the Syrian rite, the existence of which to the present day in the Malayalam country is thus explained. About 486 A.D., Nestorianism first made its appearance in Malabar. Other authorities consider that there is no evidence of Saint Thomas' presence in India, and maintain that the first Indian Christians were Manicheans or Gnostics. 2. *The first authentic mission.*—The first Roman Catholic mission arrived in India from Portugal in 1500, and was composed of Franciscan monks. In the same year, Father Pedro de Covilham was martyred. The first bishop in India was Duarte Nunez, a Dominican (1514–1517); and John de Albuquerque, a Franciscan, was the first Bishop of Goa (1539-1555). 3. *Xavier, and the Jesuits.*—The Jesuits commenced their labours in the East in 1542, their first missionary being Saint Francis Xavier. He completed the conversion of the Paraoars in Tinnevelly, who were nominally Christians before, having received Portuguese protection against the Mahomedans. Xavier died in 1552 at San Chan, a small island off the coast of China, and was buried at Goa in 1553. Poonaycauyal in Tinnevelly was the scene in 1549 of the death of Father Antonio Criminale, the proto-martyr of the Society of Jesus, and in the following year, several other missionaries lost their lives. Goa became an archbishopric in 1577. About 1596, the Archbishop of Goa, Alexis de Menezes, an Augustinian, succeeded in reconciling the Indian Nestorians to Rome, and at the Synod of Diamper (Oodiyampooram near Cochin), the affairs of the Indian Christians were settled. The Syrian rite was retained after it had been purged of its Nestorianism. 4. *Nestorianism.*—About fifty years later, emissaries from Babylon caused the whole community to relapse into Nestorianism, and the wars between the Dutch and the Portuguese at this time impeded the action of the Catholic missionaries. In 1660 however, a mission of Carmelite priests arrived, and succeeded in recovering nearly all the Indian Christians to Rome. A certain number still adhere to the Nestorian rite, and are split up into various factions, with several rival bishops. 5. *Robert de Nobili and others at Madura.*—The Jesuit mission to the Madras coast dates from 1606, and was founded at Madura by Robert de Nobili (died 1656). Other well known missionaries were John de Britto (martyred in Madura, 1693) and Beschi the great Tamul scholar (died circ. 1746). They laboured in Madura, Trichinopoly, Tanjore, Tinnevelly, Salem, &c. 6. *French Jesuits in the Carnatic.*—The Jesuit Mission of the Carnatic was of French origin, and commenced about 1700, with Pondicherry for its centre. Much good work was done by these early Jesuits. Much of their influence was due to the fact that they lived and dressed just like the natives, and Robert de Nobili even gave out that he was a Brahmin. During the seventeenth and eighteenth centuries, religious troubles and difficulties as to caste observances rose in Southern India through the action of the missionaries. The Portuguese also gave some trouble by a claim to appoint the Archbishop of Goa, while the Dutch adventurers persecuted the Catholics along the coast. The literary activity of the missionaries was, however, very great. 7. *The Jesuits suppressed in Europe.*—The work of the missions was brought to a termination by political events in Europe. In 1759 Portugal broke up the Society of Jesus within its dominions, seized its property, and imprisoned its members. France did the same in 1764, and to prevent greater evils, the Pope, Clement XIV, in 1773 was forced to suppress the whole society. The French Revolution followed. These events deprived the Indian Jesuit missions both of priests and resources, and for a long time they languished. They had persecutions also to contend against, as Tippoo, about 1784, forcibly circumcised about 30,000 Catholics of Canara, and deported them to the country above the ghauts. 8. *The Society of Jesus re-established.*—In 1814 the Society of Jesus was re-established, and under Gregory XVI (1831–1846) its missions revived and have since made great progress. Discord is still caused however by the claims of Portugal to appoint the Archbishop of Goa. 9. *General account of the missions.*—The Roman Catholic missions are maintained by many of the European nations, and are nearly equally divided between the secular and regular clergy. Although all are directed by Europeans, at least seven-eighths of the Roman priests are natives. Several natives have also been bishops, some of them being Brahmins. The missions are presided over by bishops (vicars and prefects apostolic), the delegates of the Pope, who governs the missions himself without the intervention of the hierarchy. Side by side with the sixteen vicars apostolic, the Archbishop of Goa has an extraordinary jurisdiction over a certain number of Catholics outside his diocese, and scattered over all India, but chiefly found in the south. The jurisdiction of the prefect apostolic of Pondicherry is confined to the French possessions. The native Catholics in the whole of India number 1,317,802, there being 1,038,940 in British India and Native States, 245,318 in Portuguese territory, and 33,544 in French territory. They are most numerous in the Native States of Travancore and Cochin. Veerapoly (in Travancore), the smallest of the Roman Catholic vicariates, contains the largest number of priests and Catholics. These are chiefly the descendants of the Nestorians converted to Rome in the sixteenth century, and are divided between the Syrian and Latin rites. The Roman Catholics in India seem to be steadily increasing, chiefly in the south. The converts are chiefly of the agricultural class, but are by no means confined to the low castes. The principal Catholic educational establishments in Southern India are the Jesuit colleges at Negapatam and Mangalore. There are not many English priests, so that Catholic missions have much difficulty in maintaining colleges and schools where English is the vehicle of higher education. The pecuniary resources of the Catholic missions in India are somewhat slender, their main support being derived from two great Catholic organizations, the association for the Propagation of the Faith, and the Society of the Holy Childhood. The former contributes Rupees 2,44,640 yearly to Indian missions, and the latter Rupees 1,23,000, making a total of 3,67,640 rupees.

[6] Sketch History of Catholic Mission of Madras.—*French Capuchin Mission.*— The Catholic mission of Madras was founded by the Capuchin fathers in the year 1642, with the sanction and approbation of Pope Urban VIII. Father Ephraim de Nevers, a native of Auxerre, brother of M. de Chateau, Councillor of Paris, was the first missionary of the order who came to Madras. Destined for the mission of Pegu, he arrived at Surat and travelled thence by land to Masulipatam in hopes of finding there a vessel to take him to his mission. In this he was disappointed, and under advice he proceeded south to Madras, where, he was assured, he could easily obtain passage. On his arrival he met with a cordial reception from the few Catholics then to be found in the English factory at Madras. They proposed to him to remain with them, and their proposal met with the approval of the president of the settlement. Father Ephraim deemed this a favorable opportunity for establishing a new mission for his order and consented to remain on condition that the project was approved by the Holy See. He accordingly wrote to Rome and represented that there was a prospect of more satisfactory mission work at Madras than at Pegu, and in the course of a short time received the intelligence that the Pope fully approved of the project and raised the Capuchin mission of Madras to the rank of a Prefecture Apostolic. Father Ephraim was soon provided with a residence and a humble place for celebration of the mass. (2) *Disputes with Portuguese Mission.*—The Portuguese mission at Saint Thomé had been long since established, but Portugal was then and for years previously unable to supply the requisite number of persons for the missions in the East. By the Brief "*Etsi Pastoralis*" of 1633 the then reigning Pontiff, Urban VIII, invited missionaries, both secular and regular, to enter the Eastern mission. The establishment of a Prefecture Apostolic at Madras was however distasteful to the Portuguese ecclesiastics at Saint Thomé, and although for a time friendly feelings seemed to exist, yet in 1649, when Father Ephraim was on a visit to his co-religionists at Saint Thomé, he was seized by some officers of the Goa Inquisition, placed on board a small frigate which was then ready to sail, and carried off to Goa. Father Zenon Debauze, a Capuchin, who came to India with Father Ephraim, repaired at once from Surat to Goa to effect, if possible, his friend's release. Failing in his attempt, he came to Madras and adopted the following measure to effect his deliverance. Knowing that it was the custom of the president of the Saint Thomé factory to perform some devotions on certain days in a small church outside the factory, he with the aid of a few Irishmen seized him and incarcerated him in a room in Fort Saint George as a hostage for Father Ephraim, promising to set him free as soon as it should be known at Madras that Father Ephraim had been liberated from the Goa Inquisition. The president however, after some days, effected his escape, and this stratagem fell through.

There are no Catholic Bishops' sees in the Presidency, but Vicariates Apostolic have been created by the Pope, and the Archbishop of Goa has been given extraordinary jurisdiction by the Pope beyond Portuguese territory. The Vicariates are presided

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Father Ephraim was indebted for his release to Abdoollah Cootb Khan, King of Golcondah, with whom he became acquainted on his way from Surat to Masulipatam. The king's army was then in the neighbourhood of Saint Thomé, and when he heard of the treachery practised on Father Ephraim, he threatened to destroy the Portuguese factory if he were not set at liberty before the expiration of two months. The threat was conveyed to Goa and Ephraim was set free after an imprisonment of 22 months and 22 days including the time spent on the voyage there. (3) *Restrictions by the Government.*—More than thirty years passed after Father Ephraim's first arrival at Madras before he succeeded in erecting a convenient church. At length in 1675 one was erected in Fort Saint George and opened for Divine service under the protection and with the approbation of the Governor, Sir William Langhorne. The Governor ordered a salute of cannon and a volley of small arms to be fired by all soldiers in garrison in honor of the dedication of the new church. A complaint was forwarded to the Court of Directors by the Reverend Patrick Warner, the Protestant Chaplain of Fort Saint George, against this act of the Governor. His conduct was marked by an expression of the Court's displeasure, and within two years he was recalled. The Government orders of the next few years provided that the Portuguese priests who came to reside in Madras should be watched in all their movements and removed from the town as opportunity offered. Protection was to be given to Fathers Ephraim and Zenon, who, as stated in the orders, had ever behaved themselves with all due respect to the Government of the place and to the English interests. Rules were laid down to be observed on the occasion of mixed marriages, and the baptism and education of children begotten and born of such marriages. On the occasion of mixed marriages, the Protestant chaplain exacted an oath from the contracting parties that all the children should be brought up in the Protestant religion; but in a report of his to the Court of Directors in January 1676 he expresses his wonder that the oath was seldom or never observed. The Catholic religion makes it a sin to take such an oath, and still more to observe it. (4) *Opening of a Church in Black Town, Madras.*—From a Directory of Fort Saint George preserved in the public records and dated 16th August 1688, it appears that there were four Capuchin fathers then residing in Fort Saint George, Fathers Ephraim, Theodosia, Lorenzo Pereira, and Salvador. Besides the new church in Fort Saint George, the Capuchins had a small church or chapel in Black Town, about midway between the fort and the church in Armenian Street. This chapel was very much out of repair in 1692, and permission was granted by the Governor for its repair, but with exceptions and restrictions. It was not to be enlarged, nor rebuilt higher and stronger than formerly, nor must it in any way be prejudicial to the surrounding houses nor to the freedom of the fort guns. There is a copy of this agreement still preserved in the Armenian church at Madras. (5) *First half of eighteenth century.*—In half a century after Father Ephraim came to Madras, his congregation had increased from 80 to 8,000 souls. Disabled by age and by his long services, he applied to the Governor for permission for another Capuchin priest to reside at Madras, which permission was graciously granted by an order of Government dated the 25th September 1693. During the next few years of the history of the mission there is little to record, except an attempt on the part of the Bishop of Saint Thomé to exercise jurisdiction over the Capuchin fathers. This was resisted by the Governor in Council, who declared in a general order dated 7th July 1698, that no Bishop whatsoever of the Roman Catholic religion had any power or jurisdiction over the clergy or laymen of that persuasion residing under the Government. In the year 1704, when the Legate Apostolic sent by Pope Clement XI requested Father Michael Ange de Bougez to meet him at Pondicherry, the Government passed a resolution that they would allow no one to exercise authority over the priests of Madras. Father Michael was forbidden to leave the town, and the officers were ordered to prevent him if he should attempt to go without the gates. At this date and for many subsequent years the Capuchin fathers were held in high esteem, and when charges were brought against them the Government of Fort Saint George, under the presidency of Edward Harrison, in 1715 bore testimony as to their character, declaring that the Capuchin fathers "have always demeaned themselves in so handsome a manner, both in spiritual and temporal affairs, as to give no just cause of complaint to us, their representatives; their conduct has been regular and agreeable to their profession, nor have we ever heard of or remarked any action of theirs that would occasion the least scandal to their order." Amongst the Capuchin fathers of those days special mention may be made of Father Thomas de Poictiers, a man of superior merit and ability. By his thriftiness and economy, Father Thomas had accumulated a large sum of money, the greater portion of which we are told he employed in building a church and residence for the Capuchin fathers in Fort Saint George. The two buildings cost nearly one lakh and a half rupees. In addition to the property possessed by the Capuchins in Fort Saint George by the will of Peter Uskan, a wealthy Armenian, dated 19th January 1750, the church or chapel of Our Lady of Miracles, with all the building, garden and ground belonging to the same church, were placed under their absolute and free possession. (6) *Second half of eighteenth century.*—In 1744 war was declared by England against France. Madras was taken by the French in September 1746. Unfavorable reports were made of the conduct of the priests and the Catholic inhabitants on the occasion of the town being attacked by the French. Accordingly in a general letter of the Court of Directors dated 27th January 1747, and addressed to the Governor and Council of Fort Saint David, Catholics and their priests were strictly forbidden to dwell within the boundaries of Madras, and should any of them have been employed in places of trust, they were ordered immediately to be dismissed. The Capuchin missionaries of Madras were now out of favor. One of them, Father René, was summarily transported to Lisbon, two others were ejected from Fort Saint George and their houses and church were appropriated to the uses of Government. Their church and house at Vepery would have been similarly confiscated had it not been for the protest of Peter Uskan himself, who was then living. His death however which occurred shortly afterwards, afforded the Government an opportunity of carrying out their original determination, and the church and presbytery at Vepery were handed over to the Danish missionaries. On the other hand in 1768 the Superior of the Capuchin church received from Government, under the order of the Court of Directors, a compensation of 12,000 pagodas for the confiscations in Fort Saint George and Vepery. It is said that the original cost of Peter Uskan's church and garden in Vepery was double the amount of the compensation given and the original cost of the church and hospice in Fort Saint George was six times the amount of the compensation. In 1749, when the Capuchins were ejected from the fort, they erected huts in the cemetery in Armenian Street, where they were allowed to remain for seven years and where they built a house and laid the foundations of a church. In 1756, when Madras was attacked by M. Labourdonnais, they were ordered to quit the town and repair to Poolicat, where they remained until the siege of Madras was raised by Lally in 1759. The house of the Capuchins in the Armenian Street cemetery was taken up by Government for a hospital, and was retained as such for fourteen years. The Government, at the request of Father Severini, granted an allowance of 15 pagodas per month for the time that it was occupied as a hospital, and for so long as it may continue to be appropriated to that use. About this time the conduct of Government changed with regard to the relationship existing between the Capuchin fathers and the Bishop of Saint Thomé. Heretofore his spiritual authority in the British possessions had been denied, but at this period the British possessions, like other places round the coast of Coromandel, were acknowledged to be within his diocese. In 1787 the property of the mission also was placed under the charge of four syndics appointed by Government, and the Superior of the Capuchins was obliged to render an exact account of the funds belonging to the Capuchin mission. Matters both spiritual and temporal remained in this condition for about twenty-seven years. In 1814 Father Fidelis, the then Superior of the mission, considering the furnishing of such accounts to laymen an indignity to the community of the Capuchins and an illegal exaction, refused to render accounts for the future. He complained to Government and was referred to the Supreme Court. After a lengthened law suit, which lasted nearly four years, a verdict was given in favor of the Capuchins, and the syndics were ordered to assign over the funds and securities in their possession to the Capuchins, to be administered by the Apostolic Prefect. The cost of this suit to the Capuchin mission, although the verdict was in their favor, amounted to over 10,000 rupees. During the next few years the Capuchins appeared frequently in the Supreme Court of Madras either as plaintiffs or defendants, and as the old accounts show, had to expend another sum of over 10,000 rupees as taxed bills of costs between plaintiffs and defendants. (7) *Nineteenth century.*—On the 18th March 1808 the Reverend Father John Baptist was appointed Prefect Apostolic of the Madras mission, and continued to fulfil the duties of his office till the end of 1834. At the request of the Catholics of Madras, the Holy See about the middle of that year appointed the

over by titular Bishops. The Roman Catholic Bishop, or Vicar Apostolic of Madras, receives a stipend of Rs. 500 per mensem from the Madras Government for furnishing ecclesiastical returns. The Archbishop of Goa controls all the Portuguese clergy serving within the vicariates. There are thus two establishments of Catholic clergy. Boundaries and other statistics of the vicariates and the archbishopric are given below.[7] In a table below[8] is also given for comparison a list of all the vicariates in Southern India and immediate neighbourhood with statistics. The Indian Vicariates not here mentioned are Bombay, Agra, Patna, Punjaub, Calcutta (including Chandernagore), Central Bengal, Eastern Bengal, Northern Burmah, Southern Burmah, Eastern Burmah, the Malayan Peninsula, and Siam. There are no legal enactments in this country concerning the Catholic church, except incidentally.

815. TRAVANCORE BISHOPRIC.—The ecclesiastical supervision of the Church of England in Travancore and Cochin, formerly exercised by Bishops of Calcutta and

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Reverend Daniel O'Connor, a distinguished member of the Augustinian Order in Ireland, as the first Vicar Apostolic of Madras. He was consecrated Bishop by the Right Reverend Doctor Murphy, Bishop of Cork, on the 3rd August 1834, and shortly afterwards left Ireland for India with a few missionaries and ecclesiastical students. His reception in Madras was cordial. On the 24th April 1838, in the Pontificate of Gregory XVI, the Bull *multa præclare* was issued, in which it is decreed that all those countries which were contained in the diocese of Meliapore or Saint Thomas, and which as yet were committed to the care of no Vicar Apostolic, were to be united to the Vicariate Apostolic of Madras, and that the jurisdiction and entire ecclesiastical and spiritual authority in those countries should belong henceforward to the Right Reverend Daniel, Bishop of Saldes and Vicar Apostolic of Madras, and to his successors. Doctor O'Connor shortly after receiving and publishing this Bull claimed jurisdiction over the churches of the Saint Thomé mission and appointed a day for his installation in the church of Saint Thomas at Mylapore, as Vicar Apostolic of Madras and Mylapore, in accordance with the terms of the above-mentioned Bull. The ecclesiastical authorities at Saint Thomé refused to allow the installation to take place in that church and also to recognize the force of the Bull *multa præclare* since it was not transmitted to them by the Government of Goa or Portugal. In 1839 Doctor O'Connor's health having broken down, the Right Reverend Doctor B. Carew was appointed Bishop of Edessa and Coadjutor Vicar Apostolic of Madras. After some time Doctor O'Connor retired from the mission, returned to Ireland, and remained in the Augustinian House in Dublin to the date of his death in 1869. Towards the end of 1841 Doctor Carew was appointed Archbishop of Edessa and translated to Calcutta as Vicar Apostolic. Doctor John Fennelly, who was then one on the staff of the Royal College of Maynooth, was appointed his successor. He was consecrated in Ireland and arrived in Madras on the 23rd January 1842. At that time the Vicariate Apostolic of Madras comprised not only principal portions of this Presidency, but extended to the north as far as the Godavery, and to the south it included the present South Arcot District. The Teloogoo missions in Goontoor, Kurnool and the Chingleput Districts then belonged to the Vicariate Apostolic of Pondicherry. By a mutual arrangement entered into between the then Vicar Apostolic of Madras and Pondicherry, and approved of by the Holy See, the missions north of the Palaur were ceded to Madras and the missions south of the Palaur to Pondicherry. Owing to the increase in numbers of the Christians in those missions, it was considered advisable by the Holy See to subdivide the Vicariates Apostolic of Madras and Pondicherry, and in 1846 the old Vicariate Apostolic of Madras was thus subdivided. The Vicariate Apostolic of Madras was henceforth bounded on the south by the River Palaur and on the north by the Kistna. The new Vicariate of Hyderabad was to be bounded on the south by the Kistna and on the north by the Godavery. The Vicariate Apostolic of Vizagapatam was to be bounded on the south by the Godavery and to include within it all that part of India south of the Bengal territory. The Vicariate Apostolic of Pondicherry was also subdivided into the Vicariates Apostolic of Pondicherry, Mysore and Coimbatore. The boundary of the new Vicariate of Pondicherry was to include all that country lying between the Palaur on the north and the Cauvery on the south. The Vicariate Apostolic of Mysore was to comprise the territories of the Rajah of Mysore, the British provinces of Coorg, Collegaul and part of the Wynaud; that of Coimbatore to include the collectorate of Coimbatore, the Neilgherries, and the Chittoor talook in the Cochin territory. (8) *Recent incumbents of Bishopric.*—The Right Reverend Doctor John Fennelly died on the 28th January 1868 and was succeeded by his brother the Right Reverend Doctor Stephen Fennelly, who, after an administration of twelve years, died on the 3rd May 1880, and was in his turn succeeded in the Vicariate Apostolicship of Madras by the present incumbent, the Right Reverend Doctor Joseph Colgan.

[7] VICARIATES, &c.—*Vicariate Apostolic of Madras.*—Erected 3rd July 1832, and confirmed 25th April 1834. Extending along the sea coast of Coromandel, from north to south (from the mouth of the river Kistna to the mouth of the Palaur) 300 miles; from east to west (from Madras to Moodgull) 400 miles; bounded on the south by the Vicariate Apostolic of Pondicherry and the Vicariate Apostolic of Mysore; on the west by the Vicariate Apostolic of Bombay; and on the north by the Vicariate Apostolic of Hyderabad. Total Catholic population 53,588 souls, viz., 46,744 subject to the Vicar Apostolic and 6,844 under the jurisdiction of the Archbishop of Goa. Area in square miles 47,851. (2) *Vicariate Apostolic of Pondicherry.*—Erected 8th July 1836, and 3rd June 1837. Bounded on the north by the river Palaur, which separates it from the Vicariate Apostolic of Madras; on the south by the river Cauvery, which separates it from the Vicariate of Madura; on the east by 60 miles of the coast of Coromandel, from the mouth of the Palaur to the mouth of the Vettaur, one of the many streams by which the waters of the Cauvery are discharged into the Bay of Bengal; and on the west, partly by the Mysore territory, which forms its common boundary with the Vicariate Apostolic of Mysore, and partly by the river Cauvery, which, in its southerly course, separates it from the Vicariate Apostolic of Coimbatore. The Catholic population is 184,362, viz., 179,198 under the Vicar Apostolic; 2,473 under the jurisdiction of the Prefect Apostolic, and 2,691 subject to the Archbishop of Goa. (3) *Vicariate Apostolic of Vizagapatam.*—Erected 3rd April 1850. Extending along the Bay of Bengal from Cuttack to the mouth of the Godavery; bounded on the north by the Bengal Presidency; on the west by the Bombay Presidency: and on the south by the Vicariate Apostolic of Hyderabad. Catholic population about 13,185. The Vicariate Apostolic of Vizagapatam is one of the most extensive in India. In it there is no priest, church, or congregation subject to the Archbishop of Goa. (4) *Vicariate Apostolic of Coimbatore.*—Erected in 1850. Bounded on the north by the Vicariate Apostolic of Mysore, on the west by the Vicariate Apostolic of Mangalore and Veerapoly, on the east by the Vicariate Apostolic of Pondicherry, and on the south by the Vicariate Apostolic of Madura and the mountains of Travancore. The Vicariate includes, —1st, the Collectorate of Coimbatore, excepting the Collegaul; 2nd, the Neilgherries; 3rd, the talooks of Palghaut, Colanode, Jamaypooram and other parts situated in the south of Wynaud in the western declivity of the ghauts in the Malabar Collectorate; 4th, the Chittoor talook in the Cochin territory. General population of the Vicariate 2,000,000, total Catholic population 24,027. Here also there is no priest, church or congregation subject to the Archbishop of Goa. (5) *Vicariate Apostolic of Madura.*—Erected in 1846. Bounded on the north by the Vicariate Apostolic of Pondicherry; on the north-west by the Vicariate Apostolic of Coimbatore; on the west, by the Vicariate Apostolic of Veerapoly, and the Vicariate Apostolic of Quilon, from both of which it is separated by the Southern Ghauts; and on the east and south-east by about 150 miles of sea coast, extending from Negapatam to Cape Comorin. The Vicariate contains 166 churches and 561 chapels, and is served by 66 priests. Catholic population 176,169, viz., 151,669 under the Vicar Apostolic, and 24,500 under the Archbishop of Goa. (6) *Vicariate Apostolic of Mangalore.*—

since 1835 by Bishops of Madras with the tacit consent of the native rulers, was transferred in 1880 to a Bishop consecrated for the purpose. Under the Act of 5 Victoria, commonly called the Jerusalem Bishopric Act, a Royal License was issued, dated 16th July 1879, to the Archbishop of Canterbury, authorizing him to consecrate. The consecration took place on the 25th of July 1879, and on the 27th of January 1880 the present Bishop arrived in India. His station is Cottayam. The number of Native Christians thus transferred from the superintendence of the Bishop of Madras was about 16,500 baptized and 2,100 under instruction.

REGISTRATION OF MARRIAGES.

816. Introduction.—Under the Indian Christian Marriage Act, India No. XV of 1872, [1] marriages may be solemnized by (*a*) any person who has received episcopal jurisdiction; (*b*) by clergymen of the Church of Scotland; (*c*) by any minister of

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Erected in 1853. The Vicariate Apostolic of Mangalore is bounded on the south by the Vicariate Apostolic of Veerapoly, on the north by the Archdiocese of Goa, on the east by the ghauts and on the west by upwards of 300 miles of sea-coast. It varies in breadth from east to west between 40 and 60 miles. It comprises a portion of the Collectorate of Malabar, from Ponnany to Mount Delly, a portion of the Collectorate of North Canara, and the whole of the Collectorate of South Canara. The Society of Jesus having been ordered by the Holy See in 1878 to undertake the charge of the vicariate, several members of the Society arrived in December 1878. Since then their number has increased. They now number twenty-nine in all, of whom twenty-two are priests, four novices and five lay brothers. The Catholic population of the vicariate amounts to 76,000 souls, of whom more than 50,000 are subject to the Vicar Apostolic, the rest to the Archbishop of Goa. (7) *Arch-diocese of Goa.*—The Franciscans arrived in Goa in 1517. Pope Paul III raised that city to an episcopal see on the 3rd November 1534, placing under its spiritual jurisdiction all the Portuguese possessions from the Cape of Good Hope to China. It was, however, made suffragan to the Archbishopric of Funchal, in the island of Madeira, to which ever since 1515 all the foreign missions founded by the Portuguese had been subordinate. The first Bishop appointed to the See of Goa having died before his departure from Portugal, the Pope invested, with episcopal authority, a Franciscan friar, named Dom Fr. Joao de Albuquerque, who took charge of his diocese in 1538, and established a chapter in the same year. It is divided into the Velhas and Novas Conquistas, or the Old and New Conquests. The former, which came under the Portuguese sway at an early date, comprises the three provinces of the Ilhas, Salsette, and Bardes, with an area of 48, 102, and 72 square miles, respectively. The latter, conquered at a comparatively recent date, consists of four divisions composed of the following provinces:—Pernum, 73 square miles; Bicholim or Batagrama, 67 square miles; Satari, 144 square miles; Ponda or Antruz, 79 miles; Canacona, 113 square miles, Embarbacem, 186 square miles; Cacora, 5 square miles; Chandrovady, 37 square miles; Balli, 57 square miles; Astagrar, 77 square miles. The last five are collectively known under the name of Zambaulim, or Punch-Mahaul. The island of Anjediva and the district of Tiracol, having each an area of one square mile, are also, for administrative purposes, included in the territory of Goa.

[8] Summary of the Catholic Statistics of Southern India, &c.

Vicariate Apostolic of	Bishops.	Priests.	Catholic population.	Catholic schools.	Children at Cath. schools	Under Abp. of Goa.	
						Priests.	Population.
Madras	1	40	46,744	51	3,901	19	6,844
Hyderabad	1	9	8,258	16	665	2	700
Vizagapatam	1	27	13,664	36	2,800	...	...
Pondicherry (Prefecture included) ...	2	110	186,835	67	4,755	4	2,691
Mysore	1	38	26,800	39	2,174	...	...
Coimbatore	1	27	24,027	37	1,275	...	...
Madura	1	66	176,369	155	6,840	11	24,500
Quilon	2	37	83,000	76	3,475	9	14,000
Veerapoly	2	409	281,600	600	9,275	18	13,000
Mangalore	...	58	50,000	46	2,745	20	36,000
Jaffna	1	37	75,000	105	8,097	2	1,500
Candy	1	6	12,225	10	3,000	...	...
Colombo	1	27	115,000	130	8,000	3	1,770

[1] Sketch History of Changes in the Law in the Indian Christian Marriage Acts.—The office of Marriage Registrar was created by one of the provisions contained in Statute 14 and 15 Vic., cap. XL, entitled an "Act for Marriages in India," which was extended to this Presidency by the Government of India Act No. [illegible]. There have been three repealing Acts since then; India Act XXV of 1864, India Act V of 1865, and India Act XV of 1872. The last named Act, or "The Indian Christian Marriage Act," is the law now in force. The object of the Indian Christian Marriage Act was to consolidate and amend the enactments relating to the solemnization in India either by the Clergy or by a Civil Registrar of marriages of persons professing the Christian religion. Opportunity was taken to extend the entire law relating to Christian marriages to British subjects in native allied states; and to remove ambiguity in the provisions of the pre-existing law as to the submission of returns of marriages solemnized between Native Christians by clearly laying down the rule that the returns of such marriages, howsoever they might have been solemnized, were not required. The law is applicable to all Christians, i.e., persons professing the Christian religion; and expression "Native Christians" includes the Christian descendants of natives of India converted to Christianity, as well as such converts. The most important amendment as compared with the previous law was in regard to the certifying of marriages between Native Christians under Part V of Act V of 1865. By that Act, if the persons intending marriage had attained the age of sixteen years in the case of the male and thirteen years in the case of the female, the marriage might be certified without any reference to the consent of parents or guardians. This was remedied by a provision that no such marriage should be certified when either of the parties intending to be married had not completed his or her eighteenth year, unless the consent of the father, guardian, or mother had been given to the intended marriage, or unless it appeared that there was no person living authorized to give such consent.

religion licensed under the Act; (*d*) by, or in the presence of, a Marriage Registrar appointed under the Act; and (*e*) by any person licensed under the Act to grant certificates of marriages between Native Christians. The fourth head is treated of in this article. The Brahmo Marriage Act, India No. III of 1872, was passed for the marriage of persons other than Hindoos, Mahomedans, and Christians; and, since it came into force in 1872, the Senior Marriage Registrar for the town of Madras has also been appointed a Marriage Registrar under this Act.

817. PROCEDURE.—The duties of Marriage Registrars under India Act XV of 1872 are set forth in Part V of the Act, the provisions of which in their general contexture are somewhat similar to the procedure adopted in the presence of a Registrar in England. When a marriage is to be solemnized one of the parties gives the Marriage Registrar notice as per form in Schedule I of the Act. On receiving the notice, the Registrar affixes a copy in some conspicuous place in his office. If one of the parties is a minor, he sends a copy to each of the other Marriage Registrars (if any) in the same revenue district for publication. He files all notices received by him and enters a true copy of each in a book called the "Marriage Notice Book," which is open for inspection by the public at all reasonable times without fee. When the party giving notice of the marriage has made the oath required by section 42 of the Act and requests the issue of the certificate (Schedule II), the Registrar issues under his hand a certificate of such notice having been given and of such oath having been made. But he acts thus provided only that there is no lawful impediment; that issue of certificate has not been forbidden by any person authorized in that behalf by the Act; that four days have expired since receipt of notice; and further, when one of the parties is a minor, that fourteen days have expired. In the latter case, if both parties are residing at Madras, and are desirous of being married in less than fourteen days, they may apply by petition to a Judge of the High Court for an order directing the Marriage Registrar to issue his certificate before the expiration of fourteen days. Any person whose consent to the marriage of a minor is necessary may enter a protest against the issue of the Registrar's certificate by writing at any time before its issue the word "forbidden" opposite to the entry of the notice in the "Marriage Notice Book," and subscribing his or her name thereto. Every such person is liable for the costs of all proceedings in relation thereto and for damages, if the grounds of protest be found to be frivolous. When a protest has been entered, the Marriage Registrar withholds the issue of his certificate until satisfied that the protest ought not to obstruct its issue, or until the protest is itself withdrawn by the person who entered it; or the Registrar may himself apply by petition stating all the circumstances of the case, and pray for an order and direction of Court. If the person whose consent is necessary is insane, or unjustly withholds consent, the parties interested may petition a Judge of the High Court or of a District Court to examine the matter, and if upon such examination it shall be declared that the marriage is proper, the declaration is as effectual as if the person whose consent was needed had consented to the marriage, and the Registrar issues his certificate. Should however a Marriage Registrar himself refuse to issue a certificate the parties concerned may petition as above, and the decision of the Judge of the High Court or of the District Court in the case is final. After the grant to the parties of the certificate by the Marriage Registrar, the marriage is solemnized at any time within two months by the Registrar himself according to such form and ceremony as the parties think fit to adopt. The Registrar's certificate does not authorize marriage by any other officer. The refusal of a certificate by one Registrar does not make a subsequent marriage by another Registrar illegal, but the refusal in the first instance would furnish good grounds for a refusal in the second case also. The ceremony invariably takes place in the presence of two or more credible witnesses, and in a part of the ceremony each of the parties declares that he or she knows of no lawful impediment to the union. When a marriage is not solemnized within two months after receipt of the notice, the notice and the certificate and all other proceedings thereupon are considered void. After the solemnization of a marriage, the Registrar registers it in a Marriage Registrar's Book (Schedule IV), and also in a certificate attached to the book as a counterfoil. The entries in the register are signed by the Registrar, by the parties married, and

by the two credible witnesses in whose presence the ceremony takes place. The certificate attached to the book is sent by the Registrar to the Secretary to the Local Government. The book itself is kept by the Registrar until it is filled, when it is also sent to the Government. In the rules published in the Fort St. George Gazette, dated 17th March 1874, the Government have, under the provisions of Sections 82 and 83 of the Marriage Act, authorized the levy of certain fees, and have prescribed the manner in which they shall be disposed of. These rules have the force of law.

818. ESTABLISHMENT.—Besides a Senior Marriage Registrar in the town of Madras there are 21 such officers in the Presidency located in the districts of North Arcot, South Arcot, Bellary, South Canara, Cochin, Coimbatore, Cuddapah, Ganjam, Godavery, Kistna, Kurnool, Madura, Malabar, Nellore, Salem, Tanjore, Tinnevelly, Trichinopoly, and Vizagapatam and in the Travancore State.

CHARITIES.

819. INTRODUCTION.—Endowments and inams may be taken to be cases where the Government are pledged to give by contract express or implied; charities where Government are not so pledged. Under this definition, the charitable institutions to which Government contribute directly are shown in the list at foot.[1] In the following paragraphs information is given about the principal institutions. As regards the general question of State charity in this country, it may be mentioned that the operations of Government are confined to subsidizing certain institutions supported by voluntary contributions which have been found for special reasons to be desirable in certain localities, and to acting as public almoners in times of extreme famine. The latter is a subject treated of in a separate article. For a poor law applicable to the native community there are not sufficient grounds in this country, and there would be unusual difficulties in carrying it out. The diffusion of property is moderately equal among the native population, and the great bulk of the people are of temperate and frugal habits. Further the strong co-operative social union which prevails, every family supporting its own indigent members, reduces actual pauperism within a very small limit. The relief of professional mendicants is indeed a religious observance; but the class of these is small, consisting mainly of cripples and of the lowest out-castes among whom the family tie is weak. As regards the difficulty of giving State relief in India, if it were thought necessary, the experience of other countries shows that it must take the form of poor-houses with in-door relief. In a country where the greater part of the population are poor, such institutions must when once begun be continued on a scale which would be prohibitive with regard to the means of Government. A poor-tax has never yet been levied in India. Further the discrimination in poor-houses between deserving cases and those not so deserving would be very difficult, owing to the general level of poverty already mentioned. A special poor-tax and poor-law, confined in their operation to Europeans and Eurasians, have been proposed; but this case is met by the special institutions established in large towns.

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[1] CHARITABLE INSTITUTIONS TO WHICH GOVERNMENT CONTRIBUTE DIRECTLY.

Arcot—Lungherkhana.
Bangalore—Cantonment Orphanage.
Pensioners' Widows and Orphans' Fund.
Bellary—Protestant Orphan Asylum.
Roman Catholic Orphan Asylum.
Coimbatore—Chuttram.
Ganjam—Maintenance of Famine Orphans in.
Gooty—Munro's Choultry.
Kurnool—Lungherkhana.
Madras—Civil Orphan Asylum.
Dole to Mussalman Paupers.
Foundling Hospital.
Madras—(*Continued*).
Friend-in-Need Society.
Gordon Refuge.
Military Female Orphan Asylum.
Monigar Choultry.
Parcherry Poor School.
Roman Catholic Orphan Asylum.
Sailors' Home.
Triplicane Poor-house (Lungherkhana).
Mysore—Roman Catholic Chapel.
Nellore—Lungherkhana.
Ootacamund—Agrahauram Chuttram.
Ootacamund—(*Continued*).
Friend-in-Need Society.
Lawrence Asylum.
St. Bartholomew's Hospital.
Ranipett—Dispensary.
Salem—Chuttram.
Sholinghur—Chuttram.
Vellore—Dispensary.
Lungherkhana.
Roman Catholic Orphanage.
Vizagapatam—Protestant Orphan Asylum.
Roman Catholic Orphanage.

820. OOTACAMUND LAWRENCE ASYLUM.—Sir Henry Lawrence in 1856, after having established the Hill Asylums for the children of British soldiers at Sanawar and Mount Aboo, offered a donation of Rupees 5,000 if a similar institution could be founded on the Neilgherries. The proposal was favorably received by the residents at Ootacamund, but the project fell through owing to a want of unanimity in regard to the religious basis upon which the asylum was to be founded. Two years later, in 1858, after Sir Henry Lawrence's death, the matter was again brought forward and the present asylum was established. The object in establishing the asylum was two-fold; first, to do honor to the memory of Sir Henry Lawrence, and secondly to benefit the children of the European soldiery by providing a refuge from the debilitating effects of a tropical climate and the demoralizing influence of barrack life. The Lawrence Asylum, when first instituted, was supported by annual donations and monthly subscriptions from the public, both military and civil. Out of the funds raised thus a portion was invested in Government securities, and the properties known as Stonehouse and Lower Norwood were purchased for Rupees 30,500. On the adoption of the rules of the Lawrence Asylum at Sanawar Government sanctioned a monthly grant of Rupees 500, which was subsequently raised to a maximum of Rupees 4,000 per mensem. This was intended to cover all expenditure in connection with the education and maintenance of 150 boys and 80 girls. The Government, in return, took over all the funds of the institution. On the amalgamation of the *Military Male Orphan Asylum* with the Ootacamund Lawrence Asylum being decided on, Government issued orders to the Public Works Department for the erection of the buildings at Lovedale. The amalgamation was effected in September 1871, when the Military Male Orphan Asylum premises at Madras, valued at from Rupees 50,000 to 80,000, together with "Stonehouse" and "Lower Norwood" at Ootacamund were made over to Government. No further grant was made at the amalgamation of the two asylums, although the number of boys was increased by 200, the interest, &c., on the funded capital of the Military Male Orphan Asylum being considered sufficient for the maintenance of the increased number of boys. The funded capital contributed to the Lawrence Asylum by the Military Male Orphan Asylum amounts to Rupees 4,89,200, and is lodged with the Accountant-General. In addition, the monthly grant of Rupees 500 sanctioned by the East India Court of Directors, when the Military Male Orphan Asylum was founded, has been continued. The grounds for the amalgamation of these two institutions are set forth as follows in a letter from the "Committee for the establishment of an asylum for the children of European soldiers on the Neilgherry Hills," in 1856, to the Military Secretary to Government:—"But if we might be permitted to suggest a means whereby an important aid could be given to the project, provided the Government deemed it desirable and advantageous to sanction such a measure, it appears to us that the transfer of the Male and Female Asylums of Madras to these hills, subject to the rules and constitution of the Lawrence Asylum in Bengal, would not only render a material and lasting benefit to the health and improved condition and instruction of the youths of these institutions, but the measure would at once establish the wished-for asylum; for, without some such substantial aid from Government, all private means and benevolence, however great, would be found insufficient to bring into existence and maintain the cost of an asylum for all the legitimate children of the soldiers of this army." The asylum consists of two branches, male and female. Owing to the want of a separate building for a hospital, the number of boys is limited to 330. The number of girls is limited to 60, as the building in which they are located is not capable of accommodating more than that number. The strength of the school on the 31st March 1884 was 302 boys and 59 girls. The management of the institution is placed in the hands of a committee of nine members, four of whom are appointed by Government. The Commander-in-Chief and the Bishop of Madras are the patrons of the institution. The principal of the asylums must be a clergyman of the Church of England, and his appointment is subject to the approval of the Governor in Council. In addition to the grants from Government mentioned above, the asylum realizes Rs. 38,828 per annum as donations and interest on Government securities. The Asylum Press contributes a liberal donation of Rupees 10,000 yearly. About Rupees 1,000 per

mensem is the average sum drawn as military pay and orphan allowance. The other sources of income are variable. The total income in 1883-84 of the male branch was Rs. 1,18,502 and of the female branch, Rs. 20,797.

821. MADRAS MONIGAR CHOULTRY.—The Monigar Choultry at Madras is an institution which affords shelter, food, and clothing to the native poor and infirm. It was founded in the year 1808, but why it was named as above cannot now be ascertained. The institution is supported by public contributions aided largely by the Government. The total receipts of the institution in 1883 were Rs. 16,328. The average daily number of paupers maintained during the year in the choultry was 80, and of patients in the Native Infirmary 106. There were 7 children in the Foundling Asylum. The management is placed under the supervision of a committee selected annually by Government from amongst the European and Native community. In 1867 the Vencatagherry Rajah built a choultry to the east of the Monigar Choultry, which cost about Rupees 9,400. In this 70 paupers are fed daily and clothed, and 180 out-door poor receive two ollucks of raw rice per diem. The rajah contributes annually Rupees 5,000 to meet the expenses of this branch of the charity. He has also forwarded to the directors a lakh of rupees, the interest of which is to further support the institution. A citizen named Vencatasawmy Naidoo, recently deceased, left a legacy of Rupees 24,000 to the institution, the interest to go to the general fund. There have been other benefactors. A Lying-in Hospital, attached to the choultry, built by P. S. Ramasawmy Moodelly, one of the native directors, is now in active operation, and has supplied a want long felt in that part of the town. This institution is also the preparatory training school for the students of the Auxiliary Medical School.

822. MADRAS TRIPLICANE LUNGHERKHANA.—This is a poor-house of considerable antiquity, and was taken over by the Government from the Carnatic Circar in 1857. Charity is dispensed to out-door and in-door paupers to the extent of Rupees 400 monthly, which is the amount of the Government endowment. There were 3,549 out-door paupers relieved during the year 1883-84, and 116 persons were fed, clad, and kept in the institution as inmate paupers. The institution is managed by the Deputy Commissioner of Police for Madras.

823. MADRAS FRIEND-IN-NEED SOCIETY.—This is supported by voluntary contribution with a Government grant of 50 per cent. thereon. The objects of the society are the relief of the poor and the suppression of mendicity among Europeans and East Indians of Madras town. The society's home in the Poonamallee road affords an asylum for the aged, infirm, and destitute; its labour-yard provides a test for able-bodied male mendicants, and poor women are employed at the Women's workshops, Mount Road and St. Thomé, where plain needle-work of all kinds is executed for the public. Pensions and casual relief are granted in cases considered more fit for out-door than for in-door relief. To ensure proper relief in all cases, and the detection and exposure of imposture, Madras is divided into eight districts managed by local committees who carefully investigate all applications. This is the oldest charitable institution in Madras.

824. MADRAS GORDON REFUGE.—The design of this institution at Madras is to afford a refuge for such destitute orphan girls of European descent as are not eligible for either the Military or the Civil Female Orphan Asylums. It was commenced in 1860 by Mrs. W. A. Morehead, by whose exertions sufficient money was raised to purchase the premises at St. Thomé where the refuge is now located. Subsequently the trustees of the property of the late Mrs. Gordon of St. Thomas' Mount endowed it to the amount of about 700 rupees per mensem on condition that it assumed its present title. From 1st April 1873 the institution has received a grant-in-aid from Government of Rupees 100 per mensem provided the subscriptions reach that amount. The number of children now in the refuge is 55. The cost of maintaining each child, inclusive of superintendence, food, and clothing, is about Rupees 8-8-0 a month.

825. BELLARY PROTESTANT ORPHAN ASYLUM.—For many years this institution has been instrumental in providing for large numbers of destitute and orphan children, who would else undoubtedly have fallen into vice and heathenism. Thirty children

are clothed, fed, and so far educated as to fit them for gaining their own livelihood when they grow up. Instruction is also given to day scholars at the asylum school on payment of school fees.

PRINTING PRESSES.

826. GOVERNMENT PRESS.—The Government Press, as at present conducted,[1] including the branch at the Penitentiary, is in charge of a Superintendent, assisted by a staff of upwards of 740 persons employed in various printing and binding operations, the whole establishment being subject to the orders of the Chief Secretary to Government. With the exception of the compositors, who are paid by piece-work (the Government Press at Madras being the first Government printing establishment in which the system was introduced), all the Press employés receive fixed monthly salaries, ranging from Rupees 2 upwards. The rate of remuneration to the compositors for their work is 2 annas per 1,000 ens or letters, including composition, distributing, and correcting all proofs but author's, for which latter 2 annas an hour are paid. To facilitate the operations of the Press it is subdivided into departments, viz., Public, Public Works, Military, Revenue, Revenue Board, Gazette, Book, Job, Vernacular, Secret, in which latter are printed not only the confidential papers of the different branches of the Secretariat, but also a large number (about 265,000 annually) of Examination papers in English, Latin, Greek, Sanscrit, Tamul, Teloogoo, Canarese, Malayalam, and Hindostany. In the printing department 27 machines and 44 hand-presses are constantly employed, and the work turned out comprises Government Proceedings; the Proceedings of the Board of Revenue; the Gazette; Acts and Bills in English and five Vernaculars, large numbers of which are now printed and disseminated; selections from Government Records, monthly returns, annual and other reports, District Manuals, Codes, general book-work, and a large number of forms and miscellaneous job-work for official use in the public offices throughout the Presidency. There is also attached to the Press a small stereotype and type foundry. It has been in constant operation for some years past, and is employed in stereotyping some of the forms of which large numbers of copies are required, and in casting leads, quotations, metal furniture, deficiencies in Vernacular and other founts of type, accented, diacritical, and the peculiar sorts required in printing archæological and other work of a similar nature. A complete fount of Pica Tamul has been recently cast, the punches and matrices for which were also made in the Press. At the Penitentiary branch, where about 114 prisoners are engaged, some in working the hand-presses, and some driving the machines by means of the treadmill, Land Revenue, Magisterial, Judicial, and other forms, averaging in amount upwards of 22,000,000 during the official year, are turned out for use in the mofussil. The annual number of impressions struck off at the Government Press and the Penitentiary on the average of the past five years is 37,000,000. The value of the work done during 1883-84 amounted to Rupees 3,18,447. The work issued from the Press consists mainly of the Proceedings of Government in its various departments, as well as those of the Board of Revenue and the Director of Public Instruction, amounting in all to about 1,200 papers monthly, together with Routine and other papers which go to make up the monthly volumes; Departmental Administration reports, the Gazette with

[1] SKETCH HISTORY OF THE MADRAS GOVERNMENT PRESS.—The Government Press was established in 1831, its operations being at first almost exclusively restricted to the printing of the Fort St. George Gazette, the first number of which, consisting of 12 pages, was issued on Wednesday, January 4, 1832. Subsequently the printing of the Commander-in-Chief's General Orders, Queen's Orders, and job-work on a very limited scale was introduced, together with English and Vernacular Acts. In 1845 the establishment was a small one, consisting of about 40 persons, with three Columbian presses, of English manufacture, and a few wooden presses. The printing of the Proceedings of Government was begun in 1855, when the Press establishment was increased to 95 hands, a considerable addition to the plant having been made at the same time. The Binding branch was also added about this time. In 1857 book-work printing was begun; and in 1859 the printing of the Proceedings of the Board of Revenue, which had previously been done at the Board's office, was transferred, together with such plant as the Board possessed, to the Government Press. In 1861 an important advance was made in the management of the Press by the introduction of the piece-work system of payment to compositors, which has been found to work most satisfactorily. In August 1868 a small tentative branch establishment was formed at the Penitentiary, consisting of four presses and three machines, with a supply of English and Vernacular types. Convicts were at first trained as compositors as well as pressmen, but from the inability of many of the men to read, and from recent arrangements by which long-sentenced prisoners are transferred to other jails, it has been deemed advisable to confine the convicts to press and machine work only. Within the past few years the plant has been materially added to and the establishment considerably developed.

its numerous supplements, and book-work. The former are of foolscap folio size (i.e., the size of the present work), and are, as a rule, printed in pica type, with enclosures in small pica. Tabular statements are usually printed in brevier, a still smaller size (nonpareil) being used when necessary. The book-work printing is more varied in its character both as regards the size of the page and of the type used. The most common sizes, however, are royal and demy octavos (16 pages to a sheet). Small pica and long primer are the types most usually employed for this class of work. The body of the present publication is printed in pica; the footnotes, Appendices, and Glossary and Index, in brevier. Binding by the Government Press is for the most part of an inexpensive character, consisting chiefly of boards with printed paper covers. Cloth cases with gilt backs are also made, to a large extent, for Manual and book-work generally. Country sheepskin is much used for binding purposes, especially for the work of the Registration Department and other public offices.

827. LAWRENCE ASYLUM PRESS.—The Lawrence Asylum Press in Madras is a quasi-Government institution, the general management being entrusted to a Committee appointed by Government. The connection between the Press and the Government depends on the fact that it is part of the Ootacamund Lawrence Asylum institution, the stability of which is ultimately guaranteed by Government, although the necessity for assuming the charge on State funds has not arisen. The Press was originally attached to the Madras Military Orphan Asylum, and the latter has been amalgamated with the Lawrence Asylum. The Press is worked on commercial principles, but the proceeds go to the charity. Twenty boys apprenticed from the Lawrence Asylum are boarded and clothed at the expense of the Press. The major portion of the work turned out by the Press is surplus Government work which cannot be done at the Government Press; this is paid for by cash. The Government has exempted this Press from the payment of Imperial License Tax. The stock book value of the institution has largely increased, and at the present moment, including value of Press buildings, stands at a lakh and a half of rupees. A branch of the Press was opened at Ootacamund in 1884, and an assistant accountant was despatched to that station to ensure the accounts of the branch being kept on the same method as those in the head office. The persons employed in connection with this Press are not eligible for pension under the Uncovenanted Service Civil Pension Code, but there is a special pension fund originally formed from profits.

828. DISTRICT PRESSES.—The district presses [2] form part of the Collector's office, and are managed by a Supervisor or Head Compositor receiving a salary of Rupees 50 per mensem. The abstract at foot [3] shows the usual scale of press

[2] SKETCH HISTORY OF MADRAS DISTRICT PRESSES.—These were first established in 1855. In the previous year the Collector of North Arcot employed a small printing establishment which he worked at his own cost as an experiment. About the same time the Assistant to the Commissioner of the Northern Circars set up a small lithographic press of his own to print the ordinary correspondence of his office. The successful working of these presses was so noticeable that the Government ordered a press to be set up at the Huzoor station of all the most important collectorates. Fifteen districts were accordingly at once supplied, and by March 1859 the example had been followed in all the others except the Neilgherries and Madras. In August 1883 a press was also established in the new district of Anantapore. In 1873-74 Mr. Keys, Superintendent of the Government Press at Madras, was deputed to inspect and report upon the working of the several district presses. He brought to light several abuses which have been since rectified and prepared a manual for the guidance of the press establishment.

[3] PRESS ESTABLISHMENTS IN THE DISTRICTS.

	RS.	
1 Head Compositor on ...	50	In all the districts except Madras and Neilgherries, where there are no District Presses.
1 Compositor on	30	Do. do. do.
1 do. on	20	North Arcot has two hands.
1 do. on	15	Nellore, Bellary, Anantapore and Tanjore two each; none in Vizagapatam and Kurnool.
1 do. on	12	Two in Tanjore and none in Anantapore and Malabar.
1 do. on	10	Three in Tanjore, two in North Arcot, none in Coimbatore. There are two Compositors on Rupees 8 each in Malabar, and one in Bellary and South Canara.
2 Apprentices on	7	In all districts.
1 Pressman on	12	Do.
1 do. on	10	Do.
1 Ballman on	8	Two in Tanjore, besides another on Rupees 6.
1 do. on	7	Two in Cuddapah and Bellary.
Wheeler		Two men in Tanjore and Malabar and one in Anantapore, Madura, Coimbatore and South Canara, and none in other districts. The pay is Rupees 7 in Anantapore and South Canara and Malabar and Rupees 5 in the remaining three districts.

establishment, with variations as noticed. The existing establishment are decidedly over-worked and the system admits of expansion. Men have often to work not only out of office hours, but also on holidays. The principal work done by District Presses is at present the District Gazette, as detailed below. Labour is also economized by the use of the Press for numerous papers, such as Collectors' circulars to his subordinates; puttahs, forms of account, and other standing forms required for the Revenue Department; and circulars and papers required by other departments, for example the " Police sheet" required by the Police Department. Besides the Collector's work again the printing of forms, &c., for district public officers is carried out as far as is compatible with the resources of the Press. For this no money passes, but the officers supply their own stationery. Private work is also occasionally undertaken on payment. Press work is valued for purposes of account as shown at foot.[4] The yearly value of the outturn of purely Government work may be taken at about Rupees 1,15,000, and this work is very cheaply obtained. The statement at foot [5] shows the annual value of work done and the receipts and charges during the last sixteen years.

829. District Gazettes.—With the establishment of presses commenced the publication of District Gazettes, which were issued for the first time in 1856-57. Their object is to provide a means for communicating to the public official or semi-official matter. The District Gazettes are published as occasion offers. The ordinary issue is monthly, but extra gazettes are frequently issued. In fact, considering the bulk of matter that has to be published, the compression of all publishing operations within a single monthly issue, as has been attempted, is rather expensive than economical, as it necessitates the maintenance of a larger stock of type and material. Where different portions of the gazette are required for filing or binding in separate series, they are published as different " parts " and separately paged. As a rule, everything is in diglott; sometimes triglott is used. All public officers are entitled to insert notifications in the gazette free of charge, but the Collector uses his discretion as to insertion. Private advertisements can be inserted in the gazette on payment at certain charges. Various officers on the

[4] Scale of Value for Press Work in District Presses.—For a full page of foolscap, English or Vernacular, exclusive of charge for striking, as in the following table. Any part of a page less than ¼, to be charged as ¼. Small Pica English with Long Primer Tamul to be valued at Long Primer rates. Charge for striking, Rupees 2 per 1,000 impressions; or 8 annas for every 250 or fraction thereof.

Name of type.	Plain or solid.	Quarter tabular.	Half tabular.	Full tabular.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Pica, or any larger body	1 8 0	1 14 0	2 4 0	3 0 0
Small Pica	2 0 0	2 8 0	3 0 0	4 0 0
Long Primer	2 8 0	3 2 0	3 12 0	5 0 0
Brevier	3 8 0	4 6 0	5 4 0	7 0 0

[5] Statistics of District Presses.

Years.	Estimated value of the work done.	Receipts.	Charges.	Years.	Estimated value of the work done.	Receipts.	Charges.
	RS.	RS.	RS.		RS.	RS.	RS.
1866-67	1,56,260	17,975	51,510	1875-76	1,43,090	18,830	80,367
1867-68	1,89,126	24,261	54,731	1876-77	1,45,492	16,728	62,651
1868-69	2,33,461	26,643	60,724	1877-78	1,57,802	11,559	74,670
1869-70	2,28,883	29,202	55,783	1878-79	1,71,525	13,938	79,540
1870-71	2,41,291	25,092	57,982	1879-80	1,68,904	17,818	77,253
1871-72	2,23,000	18,994	58,905	1880-81	1,58,484	28,057	69,991
1872-73	2,33,574	22,169	72,768	1881-82	1,43,219	36,867	67,209
1873-74	1,43,028	20,556	67,964	1882-83	1,41,885	42,434	72,602
1874-75	1,40,315	19,815	73,139	1883-84	1,53,560	42,063	89,139

free list receive the gazette free of charge. Other persons can receive it at the certain rates of prepaid payment, which includes postage; village servants and officials drawing less than 25 rupees per mensem, receiving it at half-rate.

STATIONERY DEPARTMENT.

830. SUPPLY.—The Government Stationery Office is primarily for the gratuitous supply to public offices of the stationery required for official purposes. In a few cases however it makes money transactions and credits the sales. The Coorg Commission, the Residencies of Mysore and Travancore, and State Railways are supplied with stationery free of charge. Stationery is supplied on payment to the Adjutants of regiments of infantry, Staff officers, Wing officers, and Commandants of batteries of artillery, Local Fund Boards, Chaplains, Ramnaud and Kimedy estates, the Officers in charge of pensioners at Vizagapatam and Arnee, the Presidency College, the Inspector of Normal Schools and the Inspectress of Girls' Schools. The number of officers to whom stationery is supplied without payment is 356, and those that obtain supplies on payment are about 165, making a total of 521 officers supplied with stationery. All officers who are entitled to obtain stationery free of charge are required to submit their indents annually as per printed forms prescribed for the purpose, sanctioned by the controlling heads of their respective departments. The only department that obtains the supply on half-yearly indents is the Railway Mail Service, Madras. The several articles issued by the Stationery Office, which are about 508 in number, are obtained partly from England and partly from local manufacturers. All European articles, excepting such special articles as are required for army schools, the lithographic department of the Gun Carriage Factory, Garrison Instructors, and survey schools, head-quarters, Queen's Own Sappers and Miners, are obtained from England by indent on the Secretary of State for India; those required for the above-mentioned departments being obtained direct from a private firm on indent forwarded through the Controller of Military Accounts. All the country articles are purchased locally by inviting tenders. The most important of these is country paper manufactured at Madras; a coarse kind of brown paper largely used in public offices for official covers and for packing purposes. Waste paper transmitted to this office by other public offices at the Presidency is sold under contract to one of the country-paper manufacturers who utilizes it in the manufacture. In the notes in the article on Manufactures and Industries will be found remarks regarding the condition and prospects of paper manufacture in the Presidency. Wooden articles, such as ink-stands, paper-weights, and rulers, are obtained from the Gun Carriage Factory, and delf ink-bottles from the School of Arts, Madras, where they are manufactured. In Vol. II, App. LXX are given particulars as to all the articles of stationery supplied on indent to departmental officers by the Government Stationery Office. Paper of a larger size than foolscap being generally used for permanent registers is supplied hand-made. In foolscaps for superior correspondence a machine-made cream-wove paper is chiefly supplied. The printed records of Government in its different departments being on a page measuring $8\frac{1}{2}$ by $13\frac{1}{2}$ inches, it is desirable that the paper used in manuscript correspondence should tally in size; otherwise the wear and tear of records is increased. This uniformity has not however yet been secured in the cream-wove foolscaps. A similar cream-wove paper is supplied for demi-official correspondence in small sizes. For ordinary drafting purposes and for vernacular correspondence paper called French foolscap, which could with difficulty be used on two sides, has lately been replaced by a printing-paper known as double-double pott, 28 lb. to the ream. Rough paper made at the Bally mills in Calcutta is being substituted for Europe-made cartridge-paper, for purposes of covers. To stations where the mails are conveyed by runners, a method of transit very destructive to the covers of heavy packets, the material supplied is stronger than where the mails are conveyed by rail or part. Paper for covers is also purchased from local manufacturers. The use of pounce or black sand for blotting is discouraged, as it precludes the use of the

reverse side of the paper. White blotting-paper from the Bally mills is being introduced, weight 32 lb. per ream. The sealing-wax supplied is as much as possible of English make, the local make being inferior. The statement at foot [1] shows the value of stationery supplied during the past three years. The increase in that time is an indication of the very great enlargement of scriptory work, in spite of economies as to material.

831. CONSTITUTION OF DEPARTMENT.—The Stationery Department is in charge of a Superintendent, whose office is at Madras. The different heads of departments indent on this officer, and he in turn obtains his stock by purchase or by indent on the Secretary of State. The indents after examination in the Government Secretariat office are forwarded to the audit office. A copy of every indent is sent to the Government of India for scrutiny. A committee for reporting to Government on questions connected with the standards of articles, and their suitability for public requirements, has been sitting since 1882. This is composed of the Chief Engineer, Public Works Department, the Accountant-General, the Commissioner of Salt Revenue, the Secretary to the Board of Revenue, the Deputy Registrar of the High Court, the Under Secretary to Government in the Public Department, the Superintendent of Public Works Stores, and the Superintendent of Stationery himself. The committee thus formed in no way controls the Superintendent.

LOCAL FUND ADMINISTRATION.

832. INTRODUCTION.—The whole Presidency, except the areas comprised in the Municipal towns and the Scheduled Districts (that is to say the Hill Tracts of Ganjam, Vizagapatam and Godavery with the Zemindarry of Jeypore), is for the purposes of local administration as for those of Revenue administration divided into 21 districts.[1] The statement at foot [2] shows their respective area, population, and revenue.

[1] VALUE OF STATIONERY SUPPLIED BY THE GOVERNMENT STATIONERY DEPARTMENT FOR THREE YEARS.

Departments.	1881-82.	1882-83.	1883-84.	Departments.	1881-82.	1882-83.	1883-84.
	RS.	RS.	RS.		RS.	RS.	RS.
Government Secretariat	6,472	5,655	3,416	Ecclesiastical ...	227	632	230
High Court, District and Sub Judges ...	16,515	43,106	48,801	Public Works ...	20,930	22,813	32,033
Board of Revenue and Collectors	1,05,390	1,30,383	1,92,195	Army and Regimental Schools	3,244	1,228	8,622
Police	15,408	19,614	16,739	Miscellaneous ...	79,211	1,44,159	1,67,571
Jails	1,437	1,595	1,728	Sales	9,768	15,395	10,247
Registration	12,645	37,748	43,098	Total ...	2,71,247	4,22,328	5,24,680

[1] SKETCH HISTORY OF LOCAL FUND BOARDS IN THIS PRESIDENCY.—*Origin.*—The idea of Local Funds originated in 1853. In that year the Collector of South Arcot, Mr. Edward Maltby, in recommending the temporary reduction of land assessment in his district, pending its survey and settlement, remarked that for the 5,000 square miles of its area there was not a single district road, and that the want of such roads was much felt, and as it could not be justly expected that these roads should all be made from the public treasury, he requested that a small fraction of the land assessment, which was to be given up on the revision, might be retained as a district road fund. The rate suggested was one anna per cawny (= 1·32 acres), and it was proposed that the fund should be expended on the district roads by the Collector and the District Engineer under the sanction of the Board of Revenue, the main lines and larger bridges being provided for by Government from general revenues. The suggestion was approved and sanctioned by Government in 1854, and the plan was extended afterwards to North Arcot and other districts in which the assessments were temporarily reduced, with this difference, however, that instead of the rate being one anna per cawny, it was fixed at 2 per cent. of the assessment charged on the land. (2) *Development of Local Funds in* 1855-56.—In 1855 the idea developed itself. In that year the Government, while reviewing a report of the Board of Revenue on the management and working of the ferries in the districts, observed that there was no uniformity in the system of management and called upon the board to submit rules for the same. They also directed that the same rules might be made applicable to the cart-tax levied in Salem, and suggested that the revenues realized should not be kept in deposit or credited to general revenues as seems to have been formerly done, but brought to account under a special head, such as "Local Funds," and regularly disbursed on sanction. The board accordingly submitted rules which were sanctioned. The rules were very simple and practical. They laid down that all sums of money collected for local purposes should be carried to account under the head of "Local Funds;" that works proposed to be executed out of the local funds should be undertaken on the joint approval of the Collector and the District Engineer, estimates for masonry and timber works costing more than Rupees 2,500 alone receiving the sanction of the Chief Engineer; that the execution of works should, as a general rule, be conducted by the District Engineer; and that an annual report should be submitted by the Collector to the board, and by the board to Government, of the operations within the year. They also observed that "at present the funds can hardly be more divided than by allotting a suitable portion to each division of a district under

833. CONSTITUTION OF LOCAL BODIES.—The constitution of the Boards was till 31st March 1885 regulated by the Local Funds Act, No. IV of 1871, and was in most respects similar to that of the Municipalities under the companion Act, No. III of 1871. From the 1st of April 1885, a new Local Boards Act (Madras No. V

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the Collector, Sub-Collector, and Head Assistant, but whenever sub-division can be carried still further, this should be done till every talook has its Local Funds." The first Local Fund Report received under the rules above mentioned was that for 1855-56, but it was incomplete, and the instructions for the credit of local funds were not fully carried out in that year. In 1856-57 the total revenue credited to local funds amounted to Rupees 1,06,000, and that in 1857-58 to Rupees 1,23,300, consisting chiefly of the road fund in South Arcot, and ferry tolls and the proceeds of avenue clippings in other districts and grass-rents, derived from renting out the right of grazing in such places as public bungalow and cutcherry compounds, or on the ditches and slopes of forts, and of cart-tax. The last source of revenue, however, shortly afterwards ceased to be an item of local funds, as it was either abolished with the moturpha or profession-tax, of which it formed an item in some places, or was transferred to municipalities, where it was simply a fee for the use of enclosed cartstands. In some places it was abolished as an altogether unauthorized tax. (3) *Imperial and Local Roads.*—In 1856 the question as to what roads should be made and maintained at the direct cost of Government came under discussion, and the Government decided that trunk roads and certain district roads should be made and kept up at the cost of the State. In 1859 the Government of India directed that the proceeds of tolls and ferries on lines of roads constructed and maintained from the public revenues should not be carried to the credit of Local Funds, but credited to the State. This order was cancelled in 1864, and the re-transfer of these sums to Local Funds was again sanctioned. (4) *Additions to Local Funds.*—In 1860 Government directed that the surplus proceeds of the Cattle Pound Fund collected under Act III of 1857 should be carried to the credit of local funds for the purpose of being laid out on works of public utility, and this order raised the funds at once by nearly a lakh of rupees. In 1862-63 two per cent. of the revenue of the Godavery District, charged at the settlement rates, was directed to be set apart as a Road Fund, and the same plan was adopted in all the subsequent settlements made prior to 1866. In 1864 Government having found that fish-rents in Bengal were treated as local funds, applied for and obtained the sanction of the Government of India for treating them as local revenue in this Presidency also. This gave about Rupees 80,000 additional to the funds. In the same year the care of public bungalows was made over to the Board of Revenue, and the grant from Imperial funds was ordered to be credited to a special fund called the Public Bungalow fund, subordinate to local funds. (5) *Revision of Local Fund Rules.*—Local funds having been thus developed, and their amount having been raised from one lakh in 1856 to nearly four lakhs in 1863, the Government of India required in 1864 an annual estimate of receipts and expenditure of local funds. They, however, observed that they wanted the estimate, not that they might exercise any interference with the expenditure of funds which were entirely at the disposal of the Local Government, but merely that they might be kept informed of the outlay for financial purposes and of the nature of the projects in reference to their effect upon the works of the country which were maintained from Imperial Funds. On the receipt of this requisition Government observed that the express abnegation of all desire or intention of interference on the part of the Government of India rendered it incumbent to adopt measures calculated to bring the administration of these funds under their effective control, and accordingly revised the rules of 1856 to the following effect:—"*a*" the District Conservancy fund was called road fund, the term being more definite and expressive of the real object of the fund; "*b*" the management of the road fund, which was under the former rules vested jointly in the Collector and District Engineer, was transferred to the Collector, that is, the responsibility of selecting works and making the most of the local funds was made over to the Collector; "*c*" the detailed audit of accounts was transferred from the Chief to the Superintending Engineer; "*d*" the Board of Revenue was invested with power of general supervision and required to watch that the budget appropriations were not exceeded, that the balances were duly brought forward, and that the local audit was properly made; and "*e*" the Engineers were made responsible for carrying out the works, and 10 per cent. of the cost was fixed as the rateable share of the Public Works Department, the previous system of equally distributing the cost over all Local Funds being considered unfair, since local fund works did not generally require high engineering skill. (6) *Road Fund Act.*—These rules remained in force till 1866, when the local revenues amounted to 6½ lakhs of rupees. This amount, however, was manifestly not enough for the wants of the country. It was calculated that at least 2 crores of rupees were necessary to complete, and a sum of 20 lakhs annually to maintain, the roads required for this Presidency; and as there was no prospect of this sum being obtained under the system then in force, and as, moreover, it was considered unjust to collect the cess only from Government tenants and not from Zemindars and Inamdars also, who equally participated in the benefits of local funds and good roads, an Act was passed in 1866, which authorized the Government to levy a road-cess at 6 pies on every rupee of the annual rent-value of all lands, ryotwarry, zemindarry, and inam. The Act was brought into force partly in 1866-67 and fully in 1867-68, and raised the Local Funds from 6 to 26 lakhs of rupees. There were no special changes between 1868 and 1870. (7) *Local Fund Bill of* 1870.—Early in 1870 a Bill was introduced, the object of which was to establish a complete system of Local Funds for local purposes. The primary reason for the introduction of the Bill was the necessity which had been long felt for some comprehensive and practical measure for providing sound elementary education for the mass of the population. In 1854, when the question of education was first taken prominently into consideration, it was thought that by a liberal system of salary grants in aid of private efforts, the cost of which was to be defrayed out of the general revenues, and by adopting measures for the improvement of indigenous schools, adequate provision would be made for the elementary instruction of the peasantry; and rules were framed accordingly in 1855. Four years later the Home Government came to the conclusion that the grant-in-aid system was unsuited to the spread of vernacular education among the masses of the people, and in the despatch issued by the Earl of Derby in 1859, the attention of the Government was drawn to the expediency of imposing a compulsory rate to defray the expenses of schools for the rural population. The measure did not find favor at Madras, but in 1863 it became apparent that, however useful the salary grant-in-aid system was, in improving higher and middle class schools, it did very little for elementary education. A Bill was therefore introduced in that year, which subsequently became law as Madras Act VI of 1863, the object of which was twofold. One was to give legal sanction to the collection of a cess for education, which had been voluntarily imposed by the people upon themselves in the Godavery district for the establishment of elementary schools, and the other was to furnish the inhabitants of towns and villages with the means of raising permanent funds for the establishment or improvement of schools. The Act provided that if the majority of the ratepayers in the Godavery district did not petition against the continuance of the schools within two months from the date of a notice which was to be inserted in the Gazette, the schools should be continued for five years, and the voluntary rate charged compulsorily for that period, a similar procedure being observed at the end of every five years. In like manner it was provided that if the inhabitants of any village in any district applied for the extension of the Act to their village, it might be so extended, and the rate voluntarily proposed to be charged by the majority of the people collected compulsorily for five years. When, however, the Act came to be worked, it was found ill-adapted to rural communities. At the end of seven years after the Act was brought into force there were only nine out of nineteen districts in which schools were established under the Act, and the total number of schools was only 104 with an attendance of 3,665 pupils. Act VI of 1863 having thus failed, Government arrived at the conclusion that the imposition of a compulsory rate could no longer be postponed, but, instead of having a special tax for education, it was considered desirable to merge the Road Cess Act of 1866, the Wynaud Tolls Act No. II of 1868, and the Education Act of 1863 into the projected measure, and to raise by a single local rate the funds required for popular education, for roads and other public objects of a local character. The Bill introduced in 1870 was intended to provide for all these purposes. (8) *Discussions on the Bill of* 1870.—The Bill underwent a full and lengthy discussion. The important points discussed were—"*a*" whether the functions of the committees appointed to administer Local Funds should be confined to advice and criticism, or

of 1884) has been introduced. Under this enactment each revenue district of the Presidency has a district board consisting of a President and not less than 24 members. Each district board may under the law have a number of talook boards under it, and each talook board may have a number of union punchayets under

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whether the whole administration should be entrusted to them; "*b*" whether education should be included among the purposes to which the funds raised under the Act ought to be applied, and, if it was included, whether it should not be elementary education only; "*c*" whether Local Fund Circles should be conterminous with the Revenue talooks or Revenue divisions in view to ensuring due localization of expenditure, or whether the determination of the size of the circle should be left to the discretion of the Executive Government; "*d*" what proportion of the funds raised under the Act should be expended on roads; "*e*" whether the Local Fund Budget should be annually read and discussed before the Legislative or the Executive Council of Government; "*f*" whether a marriage-tax should be introduced or not for the purposes of the Act; "*g*" whether the principal highways or trunk roads should be maintained at the cost of the State or from Local Funds. (9) *Functions of the Boards.*—It was considered that it would be of little advantage to have committees with functions limited to the giving of advice. It was observed by one of the members of the Legislative Council that, if the committees were merely to give advice, District Officers would simply name committees composed of men who were not likely to advise except as they were told, and thus there would be the evil of budgets passed under the cloak of non-official recommendation, while in reality they emanated entirely from District Officers. It was thought that it would be far better that the real framers of the budget should be directly answerable to Government rather than that they should have provided for them the convenient buffer of dummy Local Fund Committees. It was therefore on full consideration resolved that the committees should be responsible for the administration, and that their functions should not be limited to those of advice and criticism. The Bill as originally framed contained a provision empowering the Governor in Council to introduce the system of election in the selection of Commissioners, but the provision was struck out by the Select Committee without any reasons being assigned. (10) *Education.*—In regard to education, there was a strong opposition to its being included among the purposes to which the funds raised were to be applied. It was considered by some of the members that a separate Bill providing for a compulsory rate and to some extent for the compulsory attendance of children up to a certain age was a far better way of attempting to grapple with the education question. But eventually the opinion that there ought not to be a multiplicity of taxes, prevailed, and education was inserted among the purposes to which the funds were to be applied. Although it was agreed on all sides that it was only to elementary education that the funds should be applied, it was considered inexpedient to fix any limitation as it was difficult to foresee what the wishes of the people might, in the future, dictate as to the kind of education which was to be supported by the local rates. (11) *Size of circles.*—With reference to the size of the Local Fund Circles there was considerable difference of opinion. The District Officers were consulted; six of them were in favor of limiting the circle to the talook, four were in favor of limiting it to the Revenue division, and ten were in favor of making the Local Fund Circle co-extensive with the district. Although it was felt by the Council that, in order to ensure a due localization of expenditure, it would be advisable that the limits of Local Fund Circles should be conterminous with the revenue talooks, it was considered prudent to leave it to the Executive Government to fix the limits of the several Local Fund Circles in such manner as might seem advisable with reference to the circumstances of each district. (12) *Constitution of a Road Fund.*—As to what proportion of the funds raised under the Act should be expended on roads, there was much difference of opinion; some proposed half and others two-thirds. It was finally decided (section 36) that all the proceeds of tolls and not less than two-thirds of the land-cess should be applicable solely to the construction and maintenance of roads and communications. (13) *Discussion of budget by the Legislative Council.*—Whether the Local Fund Budget should be annually discussed before the Legislative or Executive Council was debated with much warmth. It was admitted by all the members except one that the discussion of the Provincial and Local Fund Budgets in the Legislative Councils would tend to the development of the intelligence, public spirit, and self-governing capacity of the natives, and would enable the Government to fulfil its great mission of teaching India how to manage its affairs, public and private. But the idea was ultimately given up as it was understood that the Government of India anticipated legal difficulties in allowing the budgets to be read before the Legislative Councils. (14) *Marriage-tax.*—The marriage-tax was given up as public opinion, especially native public opinion, was then against it, although, as observed by Mr. A. J. Arbuthnot, the arguments adduced against it were by no means convincing. (15) *Maintenance of trunk lines of road.*—In regard to the trunkroads formerly maintained by the State, it was contended by some of the members that it would be unjust to throw their maintenance on local funds. Mr. Arbuthnot observed that, although with reference to the heavy expenditure which the Government of India had undertaken in connection with the State Railways constructed by guaranteed companies, it was not improbable that before very long the entire cost of the ordinary roads would have to be met by local taxation, no change in that direction was imminent or certain. The immediate object of the Bill was declared to be merely to provide additional funds for the construction of cheap roads which should connect remote villages with the district roads. (16) *Passing of the Local Fund Act.*—The Act was finally passed in February 1871 after a lapse of one year from the date of the introduction of the Bill. The rates, tolls, and taxes leviable under it were as follow:—"*a*" a rate or cess not exceeding one anna in the rupee on the annual rent-value of all occupied lands—Government, Inam and Zemindarry; "*b*" a house-tax ranging from 5 rupees to 4 annas a year; and "*c*" tolls on carriages and animals at rates ranging from one anna to one rupee. The house-tax was not to be imposed generally, but only in villages or groups of villages in which a grant-in-aid school already existed, or in which the inhabitants were prepared to establish a school under the grant-in-aid rules, or in which the Government might determine to establish a school. The funds raised under the Act were to be applicable to the following purposes:—"*a*" the construction, repair and maintenance of roads and communications; "*b*" the diffusion of education; and "*c*" the construction and repair of hospitals and dispensaries, lunatic asylums, choultries, markets, tanks and wells; the training and employment of vaccinators, and medical practitioners, the sanitary inspection of villages, cleaning of roads, streets and tanks and other local works of public utility calculated to promote the health, comfort, and convenience of the people. The funds were to be administered by a Local Fund Board consisting of officials and non-officials appointed by Government, the Collector of the district being ex-officio President and having the entire executive power. (17) *Introduction of the Act into the districts.*—In 1871-72, the first year in which the above Act was introduced, Government divided the Presidency into 36 circles, and their gradual extension was contemplated. As a matter of fact, however, there has been a gradual diminution, the number of circles, when the Act was superseded, having been only 21. The land-cess was fixed at nine pies in the rupee in the districts of Godavery, Kurnool, Chingleput, Tanjore, Madura, Tinnevelly, Kistna and North Arcot, and at one anna in all the other districts. The total amount of revenue raised in the year for local purposes amounted to Rupees 46,00,000. Unions were established where rate schools, under Act VI of 1863, were in existence, and where good elementary schools were in operation, the number of unions so established being 271, and the whole Presidency was examined and reported on by the Revenue Officers and lists of proposed educational unions prepared, the principle being that the confines of the union should nowhere be more than 2½ miles from the place where the school was or might be established. In 1873-74, however, Government finding that the house-tax was most unpopular and that its immediate and special connection with education was proving injurious to that service and seriously retarding its development, directed it to be held in abeyance from the commencement of that year, but with a view of obviating the necessity for closing the sanctioned union schools in consequence of the loss of income, made a grant of Rupees 66,000 from Provincial funds, and of Rupees 22,000 from the Village Service fund. With the discontinuance of the house-tax, the union fund ceased to exist, and the receipts and charges of all Local Fund schools were incorporated with the general fund. The local funds having become liable for a portion of the cost of roads and Public Works Establishment previously paid by the State, Government contributed 12 lakhs of rupees per annum, of which 11½ lakhs of rupees were for Imperial roads transferred to the care of Local Fund

it. The talook board would in that case consist of a President and of not less than 12 members and the union punchayet would in that case consist of not less than 5 members including the chairman. The Collector of the district is, as under the superseded Act, ex-officio President of the district board, and the Revenue officer

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Boards, and the remainder for schools and general purposes. In 1874, 25 per cent. of the actual outlay on works executed by the Public Works Department was fixed as a charge in return for the services rendered by that department in the supervision of works, in lieu of the 10 per cent. allowed before the passing of the Act and of the rateable distribution allowed after it. In 1875-76 Government commenced to withdraw the provincial grants made for roads and other purposes. Thus the maintenance of highways, which was always an imperial charge, is now almost completely thrown upon local funds, and the total saving to the State by the creation of local funds and the transfer thereto of the services formerly rendered at the cost of the imperial exchequer was calculated in 1876 to be 21½ lakhs of rupees per annum. (18) *Amendment Act I of* 1878.—In the Act of 1871 the peculiar circumstances of Malabar were not sufficiently provided for. It was a wealthy district with consequently large requirements of a local character, but the assessment was unusually low and, therefore, the land-cess at one anna per rupee produced an inadequate revenue for local wants. To relieve the strain unfairly caused to provincial funds by supporting the local institutions of this rich district to the detriment of poorer and more heavily-taxed districts and to save the local funds from insolvency the land-cess was raised to two annas per rupee of assessment by Act I of 1878. (19) *Transfer of Public Works from Government to Local Agency.*—One of the most important changes made in developing the independence of the local bodies was that effected in 1878-79 by the transfer of the conduct of all Local Fund Public Works from the Government establishment of Engineers to the staff of the local boards themselves. The repair of roads under the old Road Fund Act was in the hands of the District Engineer and this was not altered by the passing of the Act of 1871, section 25 of which expressly provided for the continuance of such Government officers as were then engaged in performing any executive or ministerial duties in carrying out the purposes specified in the Act. This section is opposed to section 24 which vests the appointment and dismissal of all servants in the President. The framers of the Act no doubt desired to grant complete independence to the boards as regarded establishment, but the practical difficulties of securing efficient professional agency was such that they were compelled to fall back on existing establishments. All the members of the latter being in Government service, their rights had to be respected, and the power of appointment and of summary dismissal conceded under section 24 had necessarily, so far as concerned the Public Works establishment, to remain a dead letter. The budgets were framed by the local boards and not by the Public Works Department; in fact so little had the latter to do with the matter that the review of the budgets in the Secretariat was placed entirely under the Financial Department, an arrangement which continues to the present time. The Public Works officers felt their position as servants of the boards to be anomalous, and the latter on their side considered they had insufficient power over the former, for whose services, under section 27 of the rules framed under the Act, they were compelled to pay 25 per cent., reduced subsequently to 23 per cent., on the actual outlay on works to cover cost of establishment. (20) *Position of Public Works Officers in regard to Local Boards.*—Owing to complaints preferred by various boards from time to time, the question of providing a separate establishment for local fund works came up under a reference from the Board of Revenue in March 1875. The questions submitted for the decision of Government were—"1st, whether the entertainment of separate establishments is feasible and expedient; 2nd, whether, if this question is answered in the negative, the existing charge for Public Works Department supervision is fair and moderate." The arguments adduced in favor of providing a separate establishment were—"1st, that the boards are responsible for the due expenditure of funds, but that they have no control over the establishment expending them; 2nd, that the works are generally of a simple character and do not require professional superintendence of a high order, and that for this and other general reasons the cost of Government departmental supervision is out of proportion to the actual requirements; 3rd, that the Local Fund works do not receive sufficient attention at the hands of Public Works Department, either positively or relatively, to the amount contributed by the local funds towards the payment of the Public Works establishments; 4th, that the relations between the boards and officers of the Public Works Department have too frequently not been harmonious, and that a more complete subordination of the establishment to the boards will tend to obviate this state of things." The Board of Revenue on the evidence before them came to the conclusion that the proposition to entertain separate engineering establishments must be rejected on the three following grounds:—1st, that it would be practically impossible, having any regard to available means, to officer separate establishments efficiently; 2nd, that the cost of such establishments would certainly be much greater than the local funds seem to anticipate; and 3rd, that regarding the question from an imperial as well as local point of view, double establishment would assuredly be more expensive on the whole than the present arrangements." The Board of Revenue next examined the second point, viz., as to whether the charge of 25 per cent. should be reduced. Here they were "decidedly of opinion that the charge is unduly high relatively to the work performed, especially when it is considered that the staff maintained is often quite inadequate," and recommended that it be reduced to 20 per cent. (21) *Settlement of the questions in* 1878-79.—Matters, however, remained in statu quo until 1878 when Government greatly reduced its staff of Engineers and informed the boards that in future the Government Engineers could undertake no local fund works except those requiring high professional skill, and that they must make their own arrangements for the execution of all other works. The majority of the local bodies on a review of their financial position considered that the residuum of work which would be left to them under this proposed system would not afford adequate funds for the entertainment of a sufficiently high trained and salaried staff, and these bodies accordingly elected for taking over the whole of the local fund work in their divisions. The only exceptions to the arrangement were the local fund boards of the Kurnool, Trichinopoly, and Godavery districts, but each of these has since followed the example of the other boards. The reduction of a large body of trained officers and subordinates from the Public Works staff, each taking away pension or gratuity, often both, presented an opportunity to local fund boards for manning their establishments not likely to present itself again to the same extent. Though many of the individuals so reduced were held to be inefficient in the department, they were not all so; in fact, the services of many of the younger men were dispensed with solely on the grounds of their claims for retention being on this account less than those of their seniors. The boards were thus enabled to make a very fair selection, and no less than 40 officers and subordinates previously belonging to the department were engaged on terms which were in the majority of cases much below those for which they could have been secured at ordinary times. (22) *General results of the transfer to Local Agency.*—The transfer is generally admitted to have been satisfactory both to the boards and to the Public Works Department, and so far no insuperable difficulties have been experienced in manning the Engineering staff of the local fund boards, while all friction between them and the Government Engineers has been put an end to. The amount of expenditure thus transferred from the Government officers to those of the local bodies was nearly 27 lakhs in 1880-81. (23) *Committee of* 1883 *on Local Government.*—As mentioned in the article on Mofussil Municipalities a committee was appointed in June 1882 to report on the general question of local Government in Madras. The committee's proposals in regard to rural tracts were as follows. "*a*" Each revenue village or group of villages should be constituted a union or rural sanitary district. The unions should be classed as major or minor according as the population was over or under 5,000, but the constitution was still to be the same in character, the governing body in each case being simply a village punchayet. In minor unions, however, the punchayets should be required to provide only for the rudimentary needs of sanitary conservancy while in major unions the punchayets should have wider duties assigned them. In both classes of institutions the union funds were to consist mostly of the house tax already authorized by the Local Funds Act IV of 1871, but the collection of which has been in abeyance since 1873. At the same time certain supplementary sources of revenue were also to be provided. "*b*" Over the unions there should be the talook committee consisting of at least 12 members exclusive of the President and the Vice-President, two-thirds of which should if possible be elected. The talooks need not necessarily be

in charge of the division of a district where the talook was situated would be the ex-officio President of the talook boards in the division. With the permission of the Governor in Council, any local board can elect its President or Vice-President. All the divisional officers of a district are ex-officio members of the district board of that district. Each headman of a village is an ex-officio member of the punchayet of the union wherein the village is situated, if such divisions are constituted. The number of officials on any district board should not exceed one-fourth of the total number of members; in the case of the talook board the proportion is one-third. Three-fourths of the members of a district board can with the permission of the Governor in Council be elected. The same would be the case to the extent of

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conterminous with ordinary revenue talooks, but should be defined to be such local area as Government might declare to be a talook. "c" Above the talook committee should come the district board consisting of at least 24 members exclusive of the President, the members, to be eventually formed for the most part of representatives delegated by the talook committees of the district though in the first instance nominated by Government. The committee further recommended that the introduction of the above system should be only gradual, and with this view proposed as follows. "*a*" In revenue districts in which there is now more than one circle board, they should be amalgamated. "*b*" The number of members should be increased so as to secure more local knowledge and to interest a larger number of people in the administration. "*c*" The proportion of official members should be reduced from one-half to one-fourth of the whole number. "*d*" The post of Vice-President of the district board should be abolished and his place supplied by the appointment of a Secretary to the President and of a Chairman of the board. "*e*" The control now exercised by the Board of Revenue should be resumed by Government, which should then deal directly with the local fund boards as it now does with Municipalites. "*f*" *The Local Fund Rules should be so modified as to give greatly increased independence and powers of sanction to the local bodies. "g" The control and management of Government primary and middle schools should be made over to the local boards and the relation of the Educational Department* to the local boards should be better defined. "*h*" The relation of the Medical Department to the local boards should be better defined and placed on a more satisfactory basis. "*i*" The control of pound funds and the whole of the surplus receipts should be transferred to the local boards. "*j*" The minimum proportion of the land-cess devoted to the road fund should be reduced from two-thirds to one-half to enable the general fund to bear the charges now falling on it. The Government expressed their general concurrence with all the above proposals, but in regard to the disposal of the surplus pound fund receipts, it was decided as observed in the article on mofussil municipal administration that it was not desirable to effect any alteration in the existing system. The proposal about the appointment of a paid Secretary instead of a Vice-President, though approved by Government, has not been adopted in the Act.
(24) *New Act of* 1884.—A new Act embodying the several proposals above referred to has now been passed and introduced into the several districts from 1st April 1884. This enactment is entitled the Madras Local Boards Act 1884 and supersedes the Madras Local Funds Act IV of 1871. Under section 1 (2) of the Act, it shall come into force in any district on such date as the Governor in Council may by notification direct. Section 5 empowers the Governor in Council to declare any part of a district to be a talook for the purposes of the Act and also to modify or cancel such declaration. Under section 6 any village or group of villages can be declared to be an union for the purposes of the Act and such declaration can be modified or cancelled. Section 8 declares that each district board shall consist of a President and of not less than 24 members. The Act of 1871 has been followed in making the Collector ex-officio President. Under section 9 (2), however, the Governor in Council may authorize the members of any district board to appoint their President by election from among their own member. Every revenue officer in charge of a division of the district shall be an ex-officio member of the district board (section 10). All the other members may be appointed by Government or with the permission of Government any proportion not exceeding three-fourths of them may be elected by the members of the talook boards in the district, or if there is no talook board in any part of the district by the punchayets and by the tax-payers and inhabitants of such part of the district: but not more than one-fourth of the whole number together with the ex-officio members can be salaried officers of the Government unless they have been elected. Section 14 declares that each talook board shall consist of a President and of not less than 12 members. The revenue officer in charge of the division shall be ex-officio President unless the Governor in Council authorizes the members of a talook board to elect their own President from among their number. The members of the talook board may be appointed by Government, or with the permission of Government any proportion not exceeding two-thirds may be elected by the punchayets in the talook or by the tax-payers and inhabitants of the talook, but not more than one-third of the whole number can be salaried officers of Government unless they have been elected. Section 20 further provides that each local Board may have a Vice-President either appointed by Government or elected by the members if the boards are empowered by Government to do so. The punchayets of each union shall consist of not less than 5 persons, the headman of each village being an ex-officio member, and the other members being either wholly appointed by Government or partly so appointed and partly by election—the number of elective members to be fixed by Government. The Government can also appoint one of the members of a punchayet to be their chairman or authorize them to elect their own chairman. Under sections 24 and 126 the Government have power to remove the President, Vice-President or any member of a local board and the chairman or any member of punchayet. The executive officer of the local board is the President who is responsible for carrying out all the purposes of the Act. The President can however authorize the Vice-President to exercise any of the powers conferred on him by the Act. Similarly the executive officer of the punchayet is the chairman who can however delegate his duties to any of the members. As in the District Municipalities Act, provision has been made against any possible neglect or default on the part of the President of a local board or chairman of a punchayet in carrying out a resolution of the board or punchayet by giving the Collector of the district in the case of local boards and the President of the talook board in the case of punchayets, authority to assume the execution of such resolution. The Collector can also exercise control in the event of a local board adopting illegal measures likely to endanger the public peace, human life, health or safety, and can also provide for quick and energetic action in cases of emergency. When a divisional officer is not the President of a talook board in the division he can exercise the powers of the Collector above referred to in respect of such board. Similar control over punchayets is to be exercised by the President of the talook board, but provision for energetic action in cases of emergency has even here to be made by the revenue officer in charge of the division wherein the union is situated. The punchayets are however to work under the control and direction of the talook board. The position of Government servants lent to local boards has been clearly defined and that of the local boards' servants improved. The only new taxes authorized are fees for licenses granted for the temporary erection of pandals and other structures in streets and other public places in an union and fees for the temporary use of cart-stands, markets, market-sites, village-sites and other similar public places on the occasion of fairs and festivals. Market and cart-stand fees were however levied even under the Act of 1871 for use of places provided by the Local Fund Board for such purposes. The levy of the house-tax authorized by the Act of 1871 is authorized by the new Act also, but the proceeds instead of being spent on schools have to be devoted to the improvement of the sanitation of villages. The restriction about two-thirds of the land-cess being set apart for expenditure on roads has been removed. The formation of talook boards and punchayets has not yet taken place nor have the rules giving the local boards wider powers been passed. The direct control over the funds has been resumed by Government from the Board of Revenue.

two-thirds, in a talook board. In the case of punchayets the proportion would have to be fixed by Government. The whole executive power of a local board vests in the President, and the President is directly responsible for the due fulfilment of the purposes of the Act. Further particulars about the constitution of these bodies will be found in the first foot-note. There are at present 785 members belonging to 30 boards, or an average of 26·2 members on each board. Of these, 357 members, or 45·5 per cent., are officials, and 428, or 54·5 per cent., are non-officials. To induce non-official members to attend meetings, the Government have sanctioned payment of travelling expenses to such as live at a distance.

834. SOURCES OF INCOME.—The Local Funds administered by the Boards consist of:—(1) taxes raised under the Act, (2) grants from general revenues, (3) Special funds allotted by Government, (4) endowments, and (5) miscellaneous items which will be enumerated hereafter.

835. The taxes leviable under the Local Fund Act are:—(1) a tax not exceeding 2 annas in the rupee, on the annual rent-value of all occupied lands, on whatever tenure held in the districts of Malabar, South Canara, and the Neilgherries and not exceeding one anna in the rupee on the annual rent-value of such land elsewhere; (2) a tax on houses, varying from 4 annas to 5 rupees per annum on each house; (3) tolls upon carriages, carts or animals passing along roads within the circle, varying from 1 anna to 1 rupee; (4) fees for licenses granted for the temporary erection of pandals and other structures in streets and other public places in an union; and (5) fees for the temporary use of cart-stands and of markets, market-sites, village-sites, and other similar public places on the occasion of fairs and festivals. The tax on houses cannot be imposed except in villages, or groups of villages, comprising an union, and cannot be spent except on village sanitation and improvement of village streets. The net proceeds of all tolls must also be applied to the construction, repair and maintenance of roads and communications. The restriction in the old Act that two-thirds of the revenue from land-cess should also be spent on the same object has been removed by the new Act. The last three of the sources of income have not been utilized as yet under the Act; though often in force apart from it. The land-cess is charged on all land occupied under the ryotwarry, inam or any other tenures, the maximum rate chargeable being in all districts 1 anna in the rupee of the rent-value, except in Malabar, South Canara and the Neilgherries where the rate can be 2 annas. Malabar, however, is the only district where this higher rate is now levied. In the other districts where the lower rate is in force, the maximum rate is collected in all but one, viz., Godavery,

[2] AREA, POPULATION AND REVENUE OF LOCAL FUND CIRCLES.

Name of the district.	Area in square miles.	Population as per census of 1881.	Revenue, 1883-84.
			RS.
Anantapore	5,145	589,609	1,05,408
Bellary	6,037	650,374	1,62,567
Chingleput	2,619	944,106	2,59,410
Coimbatore	6,271	1,599,654	2,93,203
Cuddapah	8,050	1,102,056	1,92,635
Ganjam	4,274	1,463,347	1,95,128
Godavery	7,534	1,666,454	3,86,507
Kistna	7,783	1,493,784	4,30,006
Kurnool	7,676½	688,976	1,36,158
Madura	8,789¾	2,080,691	4,19,329
Malabar	6,201½	2,192,316	3,99,606
Nellore	7,150	1,183,531	2,55,540
Neilgherries	1,000	73,921	1,75,297
North Arcot	6,854	1,769,936	3,18,938
Salem	7,604	1,548,923	2,59,406
South Arcot	4,936	1,751,356	2,72,650
South Canara	4,393	923,743	1,62,256
Tanjore	3,739	1,929,232	6,02,180
Tinnevelly	4,817	1,642,281	3,77,621
Trichinopoly	3,584	1,110,811	1,87,603
Vizagapatam	2,003	1,715,677	2,29,328
Total ...	116,460¾	28,120,783	58,20,776

where the rate is 9 pies per rupee. In order to avoid inquiry into the rent-value of each holding, the law provides that, in the case of ryotwarry and inam lands, the assessment paid or payable to Government, together with any water-rate chargeable thereon, shall be taken to be the annual rent-value, the amounts payable by the tenants in the case of other tenures being taken as the rent. In the case of Zemindarries however, the full rate is not collected on the entire revenue derived by the Zemindar from his tenants, but a remission of half of the land-rate is allowed on so much of the revenue as is equal to the amount of the peshcush payable to Government in respect of such land. The Inamdars and Zemindars are further allowed to levy from the tenants half the land-cess which they pay to Government. The collections of land-cess in 1883-84 amounted to Rupees 43,57,000, or 75 per cent. of the whole revenue for the year. Tolls are leviable under the Act on carriages, carts or animals passing along the roads within the Local Fund Circles at rates varying from 1 anna to 1 rupee, but the maximum rates are not levied everywhere. The rates charged are however nowhere less than half the maximum. The total number of toll-gates which existed at the close of 1883-84 was 137, and the revenue derived from them amounted to Rupees 3,37,000. Besides the above, contributions are received from Municipalities to the extent of Rupees 1,05,000 from the tolls collected by them within their towns. This payment is made not under the provisions of any law, but simply as an arrangement between Local Fund Boards and Municipalities with a view to avoid the establishment of separate Local Fund toll-gates in close proximity to those of the Municipalities. The vehicles paying Municipal tolls pass along the Local Fund roads, and the division of tolls therefore between Local Fund Boards and Municipalities is strictly equitable. The total income from tolls amounts to 8 per cent. of the Local Fund income.

836. As mentioned in the first foot-note grants from general revenues were largely made during the first few years after the introduction of the Local Funds Act IV of 1871 on account of services transferred from imperial to local funds, but the grants have been gradually reduced and confined to special localities and special works. The amount of grants in 1883-84 was only Rupees 1,73,000, while in 1871-72 it was 12½ lakhs. Of the former, Rupees 1,17,000 were granted on account of roads in the Neilgherry and Rupees 25,000 on account of those in the South Canara district.

837. The special funds allotted for local purposes are contributions from the canal and ferry fund and half surplus of pound fund, besides fish rents allotted from general revenues. Fish rents are levied for the right of catching fish in Government tanks, channels and other reservoirs. In 1883-84 the collections amounted to Rupees 98,000, or 1·7 per cent. of the total income. The right of ferrying across rivers, channels and backwaters is leased out by Government subject to rules laid down by them in regard to the conveyance of passengers and goods and the rates to be levied from them. This right is exercised by Government not under any law but under the sanction of immemorial custom. The rents of the ferries are made over to Local Funds. Besides the above, which does not come under the head "Special Funds," but under "Miscellaneous," revenue is also derived from the application of the Canal and Ferry Acts, No. I of 1870 and No. IV of 1878, to a few districts, and the net proceeds, after meeting the expenses necessary for the proper working of the ferries, are assigned to Local Funds, under the special orders of Government, for the improvement of roads leading to those ferries. The amount derived in 1883-84 from this source was Rupees 1,21,000, or 2·1 per cent. of the total income. Under Act I of 1871, the surplus proceeds of the Cattle Pound Fund are to be appropriated to the construction and repair of roads and bridges and other purposes of public utility, and under this provision Government has directed that half the surplus proceeds collected in each circle should be paid to the Board concerned and that the other half should be devoted to the maintenance of the Government Farm at Sydapett. The amount thus credited to Local Funds in 1883-84 was Rupees 33,000.

838. The revenue under endowments is chiefly derived from lands with which choultries have been endowed by the former rulers of the country and by private

individuals. An income is also derived from the rents of buildings attached to the institutions, from interest on funds invested, and from grants made by Government in lieu of resumed inams and fees. Most of the endowments are to be found in Tanjore, Madura and Tinnevelly. The endowed institutions consist of choultries, dispensaries, water-pandals, bridges, ponds and tanks. All these institutions were formerly under the direct management of the Board of Revenue, under Regulation VII of 1817, but they have since been transferred to Local Fund Boards and these bodies now occupy the same position and have the same responsibilities as the Board of Revenue under the old Regulation (section 51, Act V of 1884). The revenue from endowments amounts to about $2\frac{3}{4}$ lakhs of rupees per annum.

839. The miscellaneous revenue consists of the items given in the footnote below.[3]

840. Amount of Income.—The total income of the Local Fund Boards is thus about 58 lakhs of rupees as shown below.[4] Contributions between circles and refunds, &c., are omitted from the statements. Hence the difference between the total as shown here and that as given in the second footnote. The incidence of taxation per head of the population is only two annas and six pies exclusive of tolls, or two annas and nine pies inclusive of tolls.

841. Objects of Local Fund Expenditure.—The funds raised under the Act are applicable to:—(1) the construction, repair and maintenance of streets, bridges and other means of communication; (2) the planting and preservation of trees on sides of roads and on other public places; (3) the construction and repair of hospitals, dispensaries, lunatic asylums, choultries, markets, drains, sewers, waterworks, tanks and wells, the payment of all charges connected with the objects for which such buildings have been constructed, the training and employment of vaccinators and medical practitioners, the sanitation of towns and villages, the cleansing of the streets, tanks and wells and other works of a similar nature; (4) the diffusion of education, and, with this object in view, the construction and repair of school-houses, the establishment and maintenance of schools either wholly or by means of grants-in-aid, the inspection of schools, and the training of teachers; (5) the establishment and maintenance of relief works in time of famine or scarcity; (6) other measures of local public utility calculated to promote the safety, health, comfort or convenience of the people; (7) the payment of salaries, leave allowances, pensions, gratuities and compassionate allowances to servants employed by the local board; and (8) the payment of all expenses specially provided for by the Act, but not included under the preceding heads. For the purposes of administration, the funds are divided into three minor heads, viz.:—(1) the Road Fund, (2) the Endowment Fund, and (3) the General Fund. The

[3] Miscellaneous Revenue of Local Fund Boards in 1883-84.

	RS.
School-fees	44,800
Contributions from Municipalities	5,000
Travellers' Bungalow fees	11,400
Sale-proceeds of books	11,800
Fines and Penalties	8,900
Contributions from private individuals in aid of works and for sanitary purposes	38,500
Sale of materials	4,000
Market rents	62,000
Sundry items	28,300
Debt Account	4,100
Ferry rents	22,800
Avenues	45,700
Interest on arrears of Revenue	19,700
Total ...	3,07,000

[4] Total Income of Local Fund Boards.

	RS.
1. Rates and Taxes	47,99,000
2. Allotments from General Revenues	1,73,000
3. Allotment of Special Funds	2,52,000
4. Endowments, Contributions and Donations	2,71,000
5. Miscellaneous, including Debt Account	3,07,000
Total ...	58,02,000

road fund consists of (*a*) two-thirds of the collections within the year of the cess on the rent value of land, (*b*) the proceeds of tolls, (*c*) grants of money from general revenues and other contributions made specially for the maintenance or construction of communications, and (*d*) such appropriation in excess of the two-thirds of the collections of the cess as may be assigned to it. Fish rents, ferry rents, and surplus pound funds are also credited to this head, except in places where the general fund is insufficient and requires to be supplemented by these special funds. The nature of the endowment fund has been already explained. The general fund consists of all revenues other than those credited to the first two heads. The road fund is expended exclusively on the construction, repair and maintenance of roads and communications, and the endowment fund on purposes to which it was lawfully applicable at the time when the endowment became vested in the Local Fund Boards. The general fund is available for all purposes for which local funds can be lawfully expended. The new rules, under Act V of 1884, which will shortly be introduced, will do away the distinction between the road and general funds.

842. PUBLIC WORKS.—The expenditure relating to public works is the most important. In the year 1883-84 it amounted to Rupees 41,69,000 or 69 per cent. of the total expenditure. This expenditure related mainly to roads, but included also expenditure from endowment and general funds. The outlay on roads including a portion of the cost of the *Engineering establishment* was Rupees 38,35,000, or 62·9 per cent. of the whole local fund expenditure of the year. All the roads in the country with a few trifling exceptions in the hill tracts are maintained from local funds and by local agency. The mileage so maintained was 18,624 miles of district road, and 256 miles of new roads were completed and 325 were in progress during 1883-84, besides 140 miles of new village roads constructed and 2,422 miles maintained in order. In addition to this expenditure on communications, Rupees 81,000 were spent in that year on objects connected with the endowment fund and Rupees 2,53,000 on those supported from the general fund. The list of the works carried out in 1883-84 given at foot will furnish an idea of the nature of the works undertaken by the local boards.[5]

843. EDUCATION.—The Local Funds Act IV of 1871 was introduced, as stated in the first footnote, mainly with a view to provide for elementary education.

[5] LIST OF WORKS CARRIED OUT IN 1883-84.

Completed.	In progress.	Repaired.
13 dispensaries.	11 dispensaries.	51 dispensaries.
1 midwife's quarters.	17 school-houses.	56 school-houses.
8 choultries.	4 choultries.	35 chuttrams.
1 bungalow.	1 bungalow.	116 bungalows.
2 school-houses.	1 Hospital Assistant's quarters.	11 inspection bungalows.
2 school-rooms.	1 Range Officer's quarters.	2 dead-houses.
2 contagious disease ward.	1 Apothecary's quarters.	1 lying-in ward.
5 dispensary sheds.	1 Local Fund Engineer's rest-house.	3 dispensary sheds.
3 dispensary compound walls.	1 Assistant Engineer's office.	2 bandypetts.
1 chattram compound wall.	5 latrines.	2 cholera-sheds.
12 latrines.	1 tiled ware-house.	2 Hospital Assistant's quarters.
1 platform to a dispensary.	6 wells.	2 Apothecary's quarters.
1 dispensary out-house.	1 tank.	2 Local Fund Engineer's offices.
1 record-room in the Collector's office.	1 police ward.	1 granary.
1 Local Fund Engineer's office and residence.	1 police dispensary cook-room.	45 wells.
2 bath-rooms.	1 shed.	52 tanks.
2 store-rooms.	1 compound wall round a dispensary.	3 ponds.
1 stable.	1 stable.	22 sheds.
1 cholera-shed.	Other minor miscellaneous works.	6 rest-houses.
2 store-sheds.		Other minor miscellaneous works.
1 rest-shed.		
5 sheds.		
3 cisterns.		
1 dust-bin.		
5 tanks.		
14 wells.		
1 rest-house and bandystand.		
Other minor miscellaneous works.		

The rules under the Act as originally drafted, had special reference to this subject. They contemplated that the educational administration should be conducted by means of unions controlled by special committees appointed by Government under section 33 of the Act. This scheme however has not obtained practically. The rules were revised in 1879. Under these revised rules there are the following provisions (*a*) Budget estimates of receipts and charges for education are subject to the ordinary budget provisions and are finally sanctioned by Government. Nearly all new items of charge require separate and previous sanction, before inclusion in the budget. (*b*) If committees have been appointed under section 33, they frame the budget and submit it to the local board. (*c*) The boards may provide for education wholly or partly by their own agency or by private agency, aided on either the salary or results system of the Grant-in-aid Code. But in practice they very frequently aid on a combination of the two systems. (*d*) As regards schools maintained by the board, they have absolute power to determine whether or not fees shall be levied, and, if levied, the rates; and to fix the strength of the teaching staff, the appointment of teachers resting with the President. The former power however cannot be exercised in the case of schools receiving aid from provincial funds. If a special committee of management constituted under section 33 exists, all bills must be signed by the President of the board and two members of the committee; such committees have also to submit annual reports. Before a Local Fund school can be opened, the sanction of Government must be obtained, the application being submitted through the Director of Public Instruction, after the opinion of the local educational officers has been obtained. No school can be closed without the sanction of Government being obtained in the same way. (*e*) If aid be given on the salary system, it must be under the rules of the Grant-in-aid Code and be limited to elementary education. (*f*) If aid be given on the results system, it must be according to the provisions of the Grant-in-aid Code relating to results grants. (*g*) Local boards should ordinarily constitute results schools which bid fair to be permanent Local Fund schools, unless the managers wish to maintain the school on the salary system. (*h*) All charges in regard to schools aided by the boards are subject to strict scrutiny. (*i*) The salaries and allowances of Inspecting Schoolmasters are to be borne by the boards, but the agents are under the control of the superior educational officers who should determine their duties in communication with the boards. Although the code of rules provides only in a cursory manner for interference on the part of the Educational department, yet in practice that department has been the chief agency through which Local Fund Boards have hitherto administered their educational affairs. Provision has been made in the new Act V of 1884 for expenditure on sanitation being met entirely from house-tax and fees. This measure will set free for expenditure on education the portion of the land-cess hitherto devoted for sanitation. The new rules framed under the Act, which will shortly be passed, contemplate giving the local boards wider powers as regards the establishment and closing of schools and the appointment of their educational officers. All aids given by the boards should be in accordance with the rules of the Grant-in-aid Code, and in regard to the levy of fees they should be guided by the fee notifications of Government issued from time to time. The boards are also entitled under these rules for aid under the Grant-in-aid Code for all objects enumerated in the code excepting the lower primary education of boys. The people resident in rural circles number 29,133,313, and theoretically there should be under instruction about two million and a quarter boys and two million girls. At the close of 1883-84, there were 341,985 children, or 1·173 per cent. of the population in schools connected with the Educational department, and if children in schools not connected with the department are taken into consideration, the total figure would probably be about 400,000. In these circles the Government was maintaining 34 middle schools with 2,248 pupils, and 10 primary schools with 420 pupils. Similarly, local boards had 110 middle schools with 6,061 pupils, and 1,003 primary schools with 1,920 pupils. There were 9 private middle schools, aided on the salary system, with 596 pupils and 21 primary schools with 731 pupils. Under the result and combined systems there were 274 middle schools with 11,962 pupils and 7,678 primary schools with 189,035 pupils. The

expenditure on education was as shown at foot.[6] The receipts from fees were as shown below.[7] Government middle schools are nearly half self-supporting, and with primary departments to a considerable extent. The reverse is the case in boards' schools. The inferior inspecting agency consisting of Inspecting Schoolmasters is paid from local funds. One hundred and seventeen of these agents were employed in 1883-84 at a cost of Rupees 56,900. At the close of 1883-84 there were twenty-nine elementary training schools for teachers under the local boards. Three more are about to be established. The remaining Provincial elementary normal schools will be transferred to them before long. The rules of admission to these schools ensure as far as possible that the men trained belong to the class of indigenous village teachers. Experience has shown that the sons and relatives of village masters readily attend such schools, if proper inducement be held out, and that it is by far the most efficacious means of improving rural primary schools. The administration of boards' schools varies much in different circles. No uniformity exists in the matter of fees. Little has been done to provide such schools with suitable buildings or apparatus, and in this respect the majority of them differ little from pyall schools. The salary grants system has not been much utilized although this was contemplated by the framers of the Local Funds Act. The reason is that the responsibility of Local Fund Boards is mainly limited to primary education. Aid under the results system is limited to lower primary schools, that is, *standards I, II, and III, but grants earned in girls' schools under these standards are debitable to Provincial funds. Rapid* increase may be expected in the expenditure for those standards as schools are supplied with trained masters or with men who have received a fair general education. In the year 1881-82 the aid so given was as follows:—first standard Rupees 75,909; second standard, Rupees 75,170; third standard, Rupees 51,211.

844. HOSPITALS AND SANITARY.—The number of hospitals and dispensaries in existence shows progressive increase, 20 or 30 being added to the list every year. There are now 206 such institutions, or an average of 9·8 for every district throughout the Presidency, independently of those maintained by the Municipalities. The institutions are among the most popular objects of local expenditure, and 19 of them possess endowments of a larger or smaller amount. The number of patients treated during the year 1883-84 was 980,000, of which nearly 11,000 were in-patients and the remainder were out-patients. The total cost of the hospitals and dispensaries was Rupees 2,78,539. Adding to this the expenditure, Rupees 1,321, on account of medical practitioners, principally quinine distributors, contributions to municipalities and missionary bodies for medical purposes, amounting to Rupees 82,909, the payment of Rupees 26,080 to Provincial funds towards the Medical College at Madras, and Rupees 13,915, the cost of maintaining at the Madras and Waltair Asylums the lunatics sent from the different circles, the

[6] EXPENDITURE ON EDUCATION IN 1883-84.

	RS.
(a) Inspection ...	56,899
(b) Local Fund training schools ...	53,078
(c) Local Fund schools ...	3,00,494
(d) Salary grants-in-aid ...	1,417
(e) Results do. ...	2,28,447
(f) Purchase of books ...	16,726
(g) Contributions ...	24,943
(h) Miscellaneous ...	3,315
Total ...	6,80,319

[7] RECEIPTS FROM SCHOOL FEES IN 1883-84.

		RS.
Government schools ...	Middle ...	22,791
	Primary ...	110
Boards' schools ...	Middle ...	17,011
	Primary ...	29,070
Private salary ...	Middle ...	5,194
	Primary ...	363
Results ...	Middle ...	39,699
	Primary ...	2,47,054
	Total ...	3,61,292

total outlay on medical services throughout the Presidency from local funds aggregated Rupees 4,02,764, which is 6·6 per cent. of the total expenditure. With few exceptions, all the dispensaries are in charge of Government Apothecaries and Hospital Assistants whose services are lent by the State and who are posted to the several districts by the Surgeon-General with the Government of Madras, the particular dispensaries to which they are to be posted being left to the decision of the Presidents concerned. The exceptions are dispensaries in charge of Pensioned Apothecaries and Hospital Assistants and of Local Fund Hospital Assistants trained in Local Fund Medical schools. Medicines, surgical apparatus and supplies are obtained by local boards on payment from the Madras Medical Stores, excepting such articles as can be locally purchased. The Vaccination establishment is under the professional supervision of the Sanitary Commissioner who has the power of appointing Deputy Inspectors of Vaccination. Each circle has one or two Deputy Inspectors and they supervise the work done by the vaccinators who are nominated by them, but formally appointed by the President of the Local Fund Board. The Local Fund Boards have the power of determining the strength and pay of vaccinators, but it is a rule that there should be at least one first-class Vaccinator in each talook, and his minimum salary is fixed at Rupees 15. The staff consisted in 1883-84 of 44 Deputy Inspectors and 606 Vaccinators. The total cost of vaccination in 1883-84 was Rupees 1,33,000 or 2·2 per cent. of the total expenditure and the number of persons successfully vaccinated was 566,000, at an average cost of three annas and nine pies per head. The expenditure under sanitation was Rupees 2,62,300 or 4·3 per cent. of the total charges. The various objects on which the outlay was incurred are detailed below.[8] Improvement of water-supply receives great attention, and a vast number of wells throughout the country are made either wholly at local fund expense or with the aid of grants proportionate to the amount contributed by the persons most immediately interested. Sanitary associations are found in several of the larger villages for supervising sanitary operations, and in these villages the local contributions for sanitary purposes are supplemented from the general Local Funds. The total number of choultries maintained by the local boards in 1883-84 was 329. Of these, travellers are fed in 57 chuttrams, the number so fed during the year above named being nearly two millions and two hundred thousand. The cost of feeding was 68,500 rupees. There are 236 travellers' bungalows under the control of the local boards. The cost incurred on account of them in 1883-84 was Rupees 24,000, and the number of travellers who made use of the bungalows was 8,054. Contributions to municipalities are chiefly for the maintenance of hospitals and dispensaries which benefit municipalities as well as local boards. The amount expended under this head in 1883-84 was Rupees 77,370.

845. AMOUNT OF EXPENDITURE.—The total charges above described, inclusive of the cost of controlling establishments, amounted in 1883-84 to Rupees 60,92,000 as shown below.[9]

[8] EXPENDITURE ON SANITATION IN 1883-84.

	RS.
1. Improvement of water-supply ...	52,739
2. Do. of village-sites ...	15,724
3. Sanitary arrangements at fairs and festivals ...	9,208
4. Scavenging villages and towns ...	1,56,161
5. Miscellaneous including cholera charges ...	28,465
Total ...	2,62,297

[9] TOTAL EXPENDITURE IN 1883-84.

	RS.
1. Public works, including cost of supervision ...	41,69,000
2. Education including an investment of Rupees 12,600 ...	6,93,000
3. Hospitals, vaccination, Medical College and sanitary Inspection, including contributions to municipalities and missionary bodies ...	5,68,000
4. Markets and choultries ...	1,94,000
5. Sanitary establishment, &c., including cholera charges ...	2,62,000
6. Travellers' bungalows and miscellaneous ...	13,000
7. Establishments in the Collectors' and Boards' offices ...	1,70,000
8. Refunds and other debt account ...	23,000
Total ...	60,92,000